

NATURAL RESOURCE EXPLOITATION AND SOCIO- ECONOMIC DEVELOPMENT IN NIGERIA (1981-2015)

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ABSTRACT

Natural resources availability in any country contributes immensely to its wealth base and aids socio-economic development. This paper examined the natural resource potentials vis-à-vis challenges and prospects as well as the extent to which these resources have been harnessed to aid socio-economic development in Nigeria. The study adopted the library research method. Secondary data were analysed statistically. Findings showed that aside crude oil and gas, the abundant natural resource potentials available in Nigeria, have been marginally exploited. The over-dependence on crude oil becomes a major challenge to natural resource

development among other factors including poor technology and technical know-how, low investment in agriculture and the mining sub-sectors, environmental degradation and so on. It was recommended, among others, that the Nigerian government should diversify the economy by investing massively in the agricultural and mining sub-sectors to enhance sustainable natural resource development. value added sectorial complementarity and entrenchment of transparency and accountability in the public sector in relation to the management of wealth accruing from natural resources should be ensured for sustainable development and improved living standards of the citizenry.

Keywords: *Natural Resources, Exploitation, Socio-Economic Development.*

INTRODUCTION

The evolution of human society has rested on the sustained interaction between man and his natural environment. This interaction largely depends on man's ability to create tools within a social organization to harness natural resources in the quest for meeting his survival and developmental needs. Adesopo and Asaju (2004) defined natural resources as those things available to man as "gifts of nature" which are either renewable or non-renewable, such as mineral, water, and agricultural, forest and atmospheric resources.

The pivotal role of natural resources in socio-economic development process has long been established by scholars. For example, Romer (1996) and Wright (1990) separately aver that the origins of rapid industrial and economic expansion in the United States of America (USA) over 1879-1940 were strongly linked to the exploitation of abundant non-reproducible natural resources, particularly energy and mineral resources. In supporting this, Barlowe (1978) described natural resources as productive assets which support economic development and sustain human populations. Also, Bradshaw (2005) argues that natural resource

mining and exploitation are viewed as key drivers of economic growth and the development process. In similar vein, Bridge (2008) averred that natural resource exploitation by the extractive industry is the lead sector that drives economic expansion which can lead to higher levels of social and economic well-being.

The United Nations Conference on Trade and Development (UNCTAD, 2007) suggests that the rising demand on developing countries for natural resource-based primary commodities in recent times from developed countries and the high prices of mineral resources in the international market have increasingly stimulated investments in natural resource exploration in developing countries (Mahtani, 2008; Okeke 2008). This has, in turn, opened economic opportunities and development prospects for resource-rich developing countries, including Nigeria, to harness its mineral resources.

Nigeria's situation appears to be a paradox because abundant natural resource exploitation seems to co-exist with sluggish rate of economic development. Eneh (2006) submits that Nigeria's GDP per capita crawls behind those of other developing countries over the years. Between 1965 and 1995 (30 years), Nigeria's GDP increased 3.6 folds from \$5.8 bn to \$26.8 bn, where Malaysia's increased 27 folds from \$3.1 bn to \$85 bn, Indonesia's increased 52 folds from \$3.8 bn to \$198 bn, and Venezuela's increased 20 folds from \$3.8 bn to \$75 bn. Yet, exploration of mineral resources took over from agriculture as the mainstay of Nigeria's economy within this period. It has been argued that the petro dollar based mono-cultural economy operated in Nigeria has been a major sustainable development challenge in the country as it is not only associated with environmental sustainability crises (Chijoke, 2009; Jack, 2014), but has also displaced the development of other natural resources such as solid minerals and agriculture (Murtala, 2011). Gyang, Nnanle and Chollom (2010) posit that over dependence on crude oil and gas leads to

rudimentary natural mineral development in Nigeria with severe consequences for environmental sustainability and human health.

The need to assess the extent natural resource exploitation has aided socio-economic development in Nigeria informs the current study. It sought to provide an overview of the natural resource potentials of Nigeria, as well as the extent to which their harnessing has aided socio-economic development in the country as measured by contributions to the Real Gross Domestic Product from 1981 to 2015. The study classified natural resources into solid minerals, agriculture/agro allied, and crude petroleum and natural gas categories.

REVIEW OF RELATED LITERATURE

Natural resource prospects and challenges in Nigeria

Nigeria is among the wealthiest countries in Africa in terms of natural resources potential. The country is blessed with diverse natural resources, ranging from crude oil, gas, iron ore, cocoa, timber, tin, columbite, tantalite, wolfram, gold, lead-zinc, limestone, kaolin, clay, shale, marble, radio-active minerals, barytes, cassiterite, coal, lignite, petroleum, natural gas and hydro-electric power (Adesopo and Asaju, 2004). These natural resources exist in multitude in different locations across Nigeria. If properly exploited, they can reasonably facilitate the growth and development of the economy. More so, it is estimated that over 3 billion metric tonnes of iron ore deposits exist in Enugu, Kogi, Niger, Lagos, as well as the Federal Capital Territory. Iron ore is being mined at Itakpe in Kogi State. There is rock salt domiciled in Benue State and salt springs at Abakaliki, Awe (Plateau State), and Uburu (Ebonyi State). In the same light, over 40 million tonnes deposits of talc is located in Osun, Niger, Ogun, Kaduna and Kogi States. The 3,000 tonnes per annum catalytic talc plant located in Niger State is the only talc plant in the country. More so, over 7.5 million tonnes of baryte is located in Taraba and Bauchi States. A

large amount of bentonite reserves of about 700 million tonnes are domiciled in several states of the federation which are yet to be exploited. In the same light, bitumen deposits are estimated at about 42 billion tonnes located in Nigeria.

There is no gainsaying that Nigeria is a resource-rich country. Table 1 shows that crude petroleum and natural gas are largely deposited in Delta, Akwa-Ibom, Bayelsa, Rivers, Edo, Imo and Abia States. Moreover, there is a huge deposit of iron ore in Ajaokuta (Kogi State), Aladja (Delta State), Agbaje (Kogi State), Anambra, Benue, and Kwara States. Similarly, large deposits of marbles are located in Igbeti (Oyo State), Abuja, and Benue State, while lead/zinc is domiciled in Ogoja (Cross River), Benue, Ebonyi, and Kano States. There are huge deposits of coal in Enugu and Ondo States, while salt is largely found in Cross River, Ebonyi, Akwa-Ibom and Abia States. Also, there are huge concentrations of limestone in Ewekoro (Ogun State), Sokoto, Bayelsa, Benue and Borno States, and gold in Oyo, Ebonyi, Kaduna, Edo, Sokoto and Zamfara States. Lignite is largely concentrated in Cross River, Delta and Bayelsa States, while tin is domiciled in Abuja and Plateau, Gombe, Kano, Nasarawa and Bauchi States, and bitumen in Edo, Ogun, Ondo, and Lagos States.

Furthermore, with regards to agriculture/agro-allied resources, cocoa is largely concentrated in Anambra, Oyo, Edo, Imo, Osun, Kwara, Ondo and Ogun States while oil palm is largely domiciled in Abia, Akwa-Ibom, Anambra, Imo and Oyo States. Groundnut is largely available in Ebonyi, Kano, Katisna, Niger and Sokoto States, while cotton is found in Kano, Katisna, Kwara, Niger and Sokoto States. Rubber grows well in Edo, Ogun, Delta, and Cross River States, while coffee is largely grown in Bauchi, Kwara and Osun States. Timber is hugely found in Delta, Edo and Ogun States, while kolanut is highly concentrated in Kwara, Ogun, Osun and Oyo States. Tobacco is highly concentrated in Kwara, Osun, Oyo and Sokoto States, while Carrot is highly available in Borno. Sugarcane is highly available in Gombe, Bauchi, Adamawa, Sokoto States with plantain

in Oyo, Ogun and Osun States. Fish is highly concentrated in Lagos, Bayelsa and Rivers States, while cassava is highly concentrated in Taraba, Oyo, Rivers, Kwara, Kogi, Jigawa, Imo, Enugu, Edo, Ebonyi, Delta, Cross River, Bayelsa, Anambra, Adamawa, Abuja and Abia States.

Table 5.1: *Distribution of natural resource potentials by sector and states in Nigeria*

S/N	STATE	SOLID MINERALS	AGRIC./AGRO ALLIED	CRUDE PETROLEUM&NAT. GAS	INDUSTRIAL POTENTIALS
1	Abia	Brine, Iron-ore, Lignite, Kaolin, Clay, Salt.	Cowpeas, Soya beans, Rice, Maize, Cassava, Oil Palm, Cocoa, Rubber, Fruits.	Petroleum & Gas	Ceramic, Cosmetic, Plastic, Petroleum & Gas Industries.
2	Abuja	Marble, Kaolin, Clay, tin, Lead, Zinc.	Yam, Cassava, Maize Beans and Fruits	-	Food Processing and manufacturing Industries
3	Adamawa	Barytes, Salt, Calcium laterites, Marble, Gypsum, Clay.	Guinea-Corn, Sugarcane, Yam Cassava, Maize, Millet, rice, Milk, Cheese, Cotton, Groundnuts	-	Agricultural processing industries
4	Akwalbom	Clay, Glass, Sand, salt,beutonite.	Coconut, Cocoa, Rubber, Raffia palm, Coffee, Oil Palm.	Crude oil and Natural gas	Agricultural processing, Oil & Gas industries.
5	Anambra	Kaolin, Limestone, marble, iron ore.	Rice, Yam, cassava, cocoa, oil palm.	Crude oil reserve	Oil and Gas industries
6	Bauchi	Limestone, Columbite, Iron ore, Tin, Kaolin.	Sugarcane, Maize, Groundnuts, Millet, Guinea corn, Cotton, coffee, Rice.	Crude oil (under survey)	Limestone, Ceramic industries.
7	Bayelsa	Limestone, Lignite.	Plantain, Banana, Cassava, Yam, Cocoyam	Crude oil and gas	Oil & Petrochemical
8	Benue	Tin, Columbite, Kaolin, lead/zinc, Gypsum, iron ore, marble, limestone.	Yam, Rice, Maize, Sorghum, Millet and Fruits	-	Food canning/cement
9	Borno	Gypsum, Iron ore, Feldspur, Limestone, clay	Millet, Carrot, Wheat, Arabic gum, Hides & Skins.	-	Soda ash, leather industries
10	Cross river	Limestone, Baryte, Uranium, Bentonite, lead/zinc, Lignite.	Rubber, Cocoa, Oil Palm, Cassava, rice, fruits.	-	Agric and fishing
11	Delta	Lignite, Gypsum, Tar	Palm oil, Kernel,	Crude oil and Gas	Petrochemical, Oil &

		Sand, Silica, iron ore.	Cassava, Rubber, and Timber.		Wood processing
12	Ebonyi	Salt, Limestone, Lead, Zinc, Gypsum, Gold.	Yam, Rice, Cassava, Maize, Soya beans, groundnut.	-	Mining, food processing
13	Edo	Gypsum, Tar sand, Lignite, Marble, Bitumen.	Cassava, Yam, Gari, Plantain, Rubber, cocoa, Timber.	Oil and Gas reserve	Oil and Gas, Industries, Cement, food and Rubber processing
14	Ekiti	Tantalite, Quarta, Kaolin, Sand, Clay, Gold, Feldspar	Cocoa, Timber, Palm produce.	-	Food & canning, wood processing
15	Enugu	Coal, Clay, Limestone, Silica, Iron ore, Lead	Oil Palm, Cassava, Rice, Maize, Yam.	-	Ceramic, Pottery, Mining
16	Gombe	Gypsum, Columbite, Lead, Zinc, tin, Iron ore, Clay.	Maize, Beans, Groundnuts, Millet, Cotton, Rice, sugarcane.	-	Cotton, cement work
17	Imo	Limestone, Lead, Zinc, Ore, Kaolin, Clay	Oil palm, Cassava, Cashew, cocoa.	Crude oil	Food processing, oil & Gas industry
18	Jigawa	Kaolin, Tourmaline, Copper, Iron ore, clay.	Groundnut, Cassava, Wheat, Millet.	-	Agro & Food based, Mining, Limestone work
19	Kaduna	Gold, Gemstone, Talc, Zinc, Clay, Iron ore	Wheat, Millet, Rice, Beans, Potatoes		Food processing, Fertilizer industries
20	Kanu	Tin, Zinc, Lead, Clay, Copper, Kaolin	Onions, Groundnut, Rice, Maize, cotton, Wheat	-	Food processing work
21	Katsina	Marble, Kaolin, Feldspar, Iron ore	Guinea Corn, Groundnut, Millet, Wheat, Maize, rice, Cotton.	-	Flourmill, meat processing
22	Kebbi	Kaolin, Salt, Clay, Limestone, Iron ore	Millet, Guinea corn, Maize, Ginger, Bears fruits	-	Groundnut mills, leather industries
23	Kogi	Limestone, Clay, Gold, Iron ore, Coal Marble	Yam, Cassava, Rice, Maize, Coffee, Cashew	-	Ore mining, Cement industries
24	Kwara	Iron ore, Marble, limestone, Clay, Feldspar	Yam, Cassava, maize, tobacco, cocoa, cotton.	-	Mining, Food processing
25	Lagos	Iron ore, Marble, Bitumen, Limestone, Clay, Feldspar	Fish, Coconut	Crude oil	Food processing, oil & Gas, papermill
26	Nasarawa	Iron ore, Marble, Coal, Lead, Zinc, Tin	Rice, Yam, Maize, Cotton	-	Agro Allied industries
27	Niger	Glass, Gold, Iron ore	Corn, Rice, Yam, groundnut, cotton.	-	Energy, Mining

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28	Ogun	Limestone, Chalk, Clay, Kaolin, Phosphate, Bitumen, Tar Sand	Rice, Maize, Beans, plantain, palm produce, Cocoa, Rubber, Timber.	-	Food processing, Mining
29	Ondo	Bitumen, Limestone, Kaolin, Iron ore, coal.	Timber, Palm, produce Cocoa, Kolanut	-	Oil & Gas, Wood, Food processing
30	Osun	Gold, Clay, Limestone, Kaolin, Granite	Cocoa, Plantain, Tobacco, coffee, Kolanut, Rice, Maize	-	Food processing
31	Oyo	Dolomite, Kaolin, Marble, Iron ore, Clay, Gold, Gemstone.	Cocoa, Palm produce, Kolanut, Cashew, Tobacco, Plantain, Maize, Cassava	-	Mining, Food processing
32	Rivers	Silica, Sand, Clay	Palm oil, Fish, Cassava, Fruits	Crude oil & Natural Gas	Oil industries, petrochemicals, glass works
33	Sokoto	Kaolin, Gypsum, Salt, Marble, Limestone, Gold	Rice, Wheat, Millet, Groundnut, sugarcane, tobacco, cotton.	-	Food processing, Cement industry
34	Taraba	Baryte, Bauxite, Iron ore	Rice, Guinea Corn, Yam, Cassava, Fruits	-	Food processing, canning
35	Yobe	Arabic Gum, Gypsum, Limestone, Clay, Kaolin	Cotton, Groundnut, Millet, Maize.	-	Food processing
36	Zamfara	Gold, Mica	Rice, Maize, Guinea Corn.	-	Food processing.

Source: *The Week*, April 30, 2001 p.13

From the foregoing analysis, it is evident that the natural resource base of Nigeria is enormous. However, the extent to which the exploitation of these resources help to develop the economy and improve the well-being of the citizenry has been described as grossly low. Gyang et al (2010) identified the following challenges to natural resource development in Nigeria:

- i. Policy inconsistency and lack of adequate legislation,
- ii. High risk and health hazards,
- iii. Weak regulation,
- iv. Lack of well-equipped laboratories,

- v. Unwholesome practices of stakeholders and inadequate trained personnel
- vi. Lack of access to capital
- vii. Lack of appropriate technology and machinery, and
- viii. Environmental degradation and pollution.

METHODOLOGY

The study adopted the library research method using secondary data sourced from several periodicals, journals, books and archives including the Central Bank of Nigeria Statistical Bulletins. It utilized the time series data on Agriculture/Agro Allied resources, Solid Minerals and Crude Petroleum and Natural Gas between 1981 and 2015. A content analysis of data gathered was presented and corroborated with descriptive tools such as tables and charts computed from the Microsoft Excel package 2010.

FINDINGS AND DISCUSSIONS

The contribution of the diverse natural resources to economic development of Nigeria is predicated on the extent to which they have been harnessed for the development of the economy. Aside crude oil, a majority of the available natural resources are unexploited hence their limited contributions to the economy. This scenario is associated with the dependence on crude oil and the attendant non-diversification of the Nigerian economy. Historically, for instance, the contribution of the mining and quarrying sub-sector to the national economy only became significant after about five years of independence and by 1970 mining and quarrying had emerged to become the leading sector in terms of percentage share of GDP from 33.13% in 1971 compared to 36.0% for Agriculture and Allied sector. Its share increased from 39.3% in 1971/1972 to 43.4% in 1972/1973 and to 45.5% in 1974/1975. In 1975 to 1976 however, there was a drastic fall in the share of GDP to 21.9% compared to 26.9% by the agricultural sector. In 1976 to 1977, mining and quarrying resumed the lead in contribution to GDP and maintained that

status until the second decade of Nigeria's independence. Furthermore, the production of solid mineral in Nigeria has been increasing. For example, from 763,511 tonnes in 1970, it increased to 2,069,233 tonnes in 1973, representing a 171.1% increase (Anyanwu et al, 1997).

In the light of this and in a bid to ascertain the extent of natural resource exploitation in Nigeria, a sector by sector analysis of the contributions of Agriculture/Agro Allied, Solid Minerals and Crude Petroleum & Natural Gas to Real GDP (Gross Domestic Product) between 1981 and 2015 would be provided in Table 2. Exploitation of Agric/Agro-Allied resources has an increasing trend sequentially except in 2002 when it increased to ₦7,817.08 billion as against ₦5,024.54 billion in 2001. Exploitation of agricultural/agro allied resources has been on the steady increase during the period from ₦2,364.37 in 1981 to ₦3,174.57 in 1988 and ₦4,133.55 in 1996 to ₦5,024.54 in 2001 and ₦7,817.08, ₦8,364.83, and ₦9,516.99 in 2002, 2003 and 2005 respectively. It has, therefore, followed this trend throughout the period under review with the lowest level of exploitation being ₦2,303.51 billion in 1984 and a highest of ₦5,952.22 billion in 2015. Moreover, the exploitation of solid mineral in Nigeria has also been on the increase during the period being reviewed. However, its increase has not been significant, neither has it been steady. Exploitation of solid mineral as at 1981 was ₦67.14 billion, while that of 1982 was ₦54.84 billion, showing a decrease by ₦12.3 billion. It kept decreasing by ₦44.01 billion, ₦32.81 billion, ₦28.05 billion and ₦29.09 billion in 1983, 1987, 1988 and 1990 respectively. It later experienced an increase by ₦40.84 in 1991. This increase can be associated with the creation of the Federal Ministry of Solid Minerals to revamp the solid mineral sub-sector. In buttressing this, the CBN (1995) averred that the Federal Ministry of Solid Minerals was created to formulate appropriate policies and machinery for vast exploration and development of solid minerals in the country. The maximum level of solid mineral exploitation

was put in 2015 at ₦102.54 billion, while its lowest was in 1995 at ₦17.08 billion in 1995. Accordingly, the exploitation of crude petroleum and natural gas has been increasing during the period being reviewed.

Table 5.2 reveals that the exploitation of CPNG in 1981 was ₦4,977.42 billion. By 1989, it increased to ₦5,407.01 billion and later increased to ₦6,933.58 in 1997 and fell again to ₦6,552.69 in 1999 and increased a year after by ₦7,281.94. Moreso, it further increased by ₦8,952.62 and ₦9,294.05 in 2003 and 2005 respectively but declined to ₦7,947.72 and ₦7,983.63 in 2008 and 2009 respectively. It however increased in the year that followed by ₦8,402.68 and the increase remained steady before declining to ₦7,105.28 and ₦7,011.81 in 2013 and 2014, then further declined to ₦6,629.96 billion in 2015.

Table 5.2: Showing Real GDP and Total Outputs of Agriculture/Agro Industry, Solid Minerals and Crude Petroleum & Natural Gas in Nigeria, and their Percentage Contribution to GDP, 1981-2015.

YR	RGDP (₦billions)	AGRIC/AGRO INDUSTRY (₦billions)	SOLID MINERALS (₦billions)	CRUDE PETROLEUM/ NATURAL GAS (₦billions)	%AGRIC/AGRO - RGDP	%SOLIDM- RGDP	%CPNG- RGDP
1981	15,258.00	2,364.37	67.14	4,977.42	15.49595	0.44001	32.62168
1982	14,985.08	2,425.96	54.84	4,453.09	16.18918	0.365967	29.71685
1983	13,849.73	2,409.08	44.01	4,052.98	17.39444	0.317803	29.26396
1984	13,779.26	2,303.51	43.08	4,559.20	16.7172	0.312632	33.08739
1985	14,953.91	2,731.06	44.54	4,918.27	18.2632	0.297842	32.88954

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19 86	15,237. 99	2,986.84	35.25	4,825.50	19.60125	0.231315	31.66755
19 87	15,263. 93	2,891.67	32.81	4,704.42	18.94448	0.214925	30.82053
19 88	16,215. 37	3,174.57	28.05	4,828.68	19.57752	0.172968	29.77843
19 89	17,294. 68	3,325.95	28.66	5,407.01	19.23105	0.165709	31.26401
19 90	19,305. 63	3,464.72	29.09	6,831.77	17.94666	0.150657	35.38743
19 91	19,199. 06	3,590.84	40.84	6,224.45	18.70319	0.212738	32.42061
19 92	19,620. 19	3,674.79	30.60	6,381.26	18.72965	0.155984	32.52394
19 93	19,927. 99	3,743.67	20.78	6,394.60	18.78596	0.104278	32.08854
19 94	19,979. 12	3,839.68	17.21	6,229.46	19.21844	0.086158	31.17984
19 95	20,353. 20	3,977.38	17.08	6,375.97	19.5418	0.083931	31.32662
19 96	21,177. 92	4,133.55	17.54	6,832.84	19.5182	0.0828	32.26396
19 97	21,789. 10	4,305.68	18.50	6,933.58	19.76071	0.084926	31.82133
19 98	22,332. 87	4,475.24	19.40	7,083.99	20.03881	0.086855	31.72001
19 99	22,449. 41	4,703.64	20.21	6,552.69	20.95219	0.090005	29.18869
20 00	23,688. 28	4,840.97	21.04	7,281.94	20.43614	0.08884	30.7407
20 01	25,267. 54	5,024.54	22.39	7,662.98	19.88536	0.088621	30.32737

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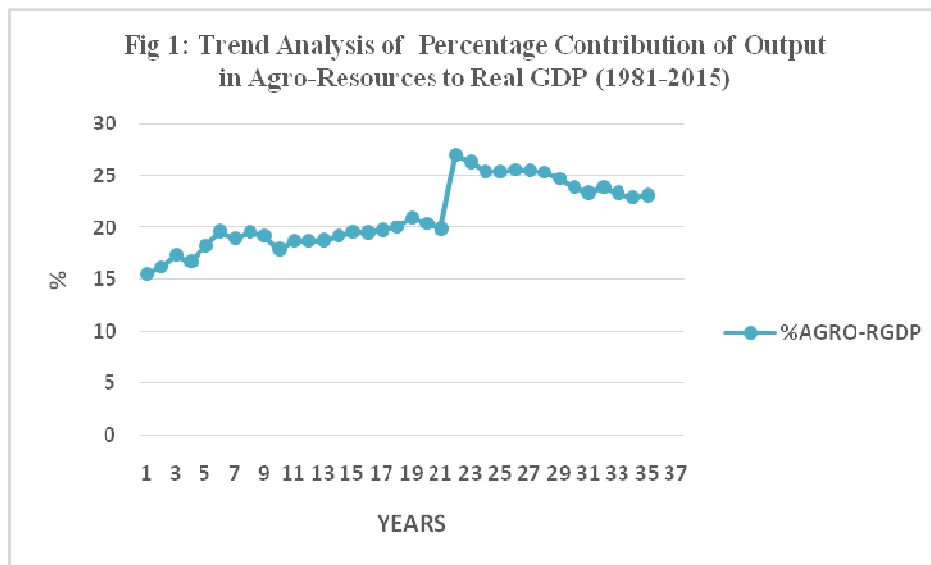
20 02	28,957. 71	7,817.08	22.18	7,225.68	26.99483	0.07659	24.95252
20 03	31,709. 45	8,364.83	23.20	8,952.62	26.37962	0.073155	28.23327
20 04	35,020. 55	8,888.57	27.09	9,248.05	25.38102	0.077363	26.4075
20 05	37,474. 95	9,516.99	29.70	9,294.05	25.39561	0.079251	24.8007
20 06	39,995. 50	10,222.47	32.77	8,874.70	25.55906	0.081931	22.18924
20 07	42,922. 41	10,958.47	36.87	8,471.95	25.53088	0.085907	19.73782
20 08	46,012. 52	11,645.37	41.47	7,947.72	25.30914	0.090126	17.27295
20 09	49,856. 10	12,330.33	46.38	7,983.63	24.73183	0.093032	16.01334
20 10	54,612. 26	13,048.89	51.88	8,402.68	23.8937	0.094993	15.38606
20 11	57,511. 04	13,429.38	59.42	8,598.64	23.35096	0.103316	14.95128
20 12	59,929. 89	14,329.71	71.13	8,173.26	23.91078	0.118689	13.63803
20 13	63,218. 72	14,750.52	82.87	7,105.28	23.33252	0.131082	11.23921
20 14	67,152. 79	15,380.39	95.21	7,011.81	22.90358	0.141788	10.44158
20 15	69,023. 93	15,952.22	102.54	6,629.96	23.11114	0.148563	9.605312

Source: Computed by Authors from CBN Statistical Bulletin and Annual Report 2015

From Table 2, it is deducible that crude petroleum and natural gas exploitation has been fluctuating given its highest level of exploitation in

2005 with ₦9,294.05 billion and its minimum in 1983 with ₦4,052.98 billion. Comparatively, the exploitation of solid mineral in Nigeria has been lower than that of agriculture/agro allied resources and crude petroleum and natural gas during the period under review.

Furthermore, with respect to the percentage contribution of each natural resource sector to the Gross Domestic Product of Nigeria, Figure 1 below shows the percentage (%) contribution of Agriculture/Agro Allied products (resources) to Real Gross Domestic Product (RGDP) from 1981 to 2015.

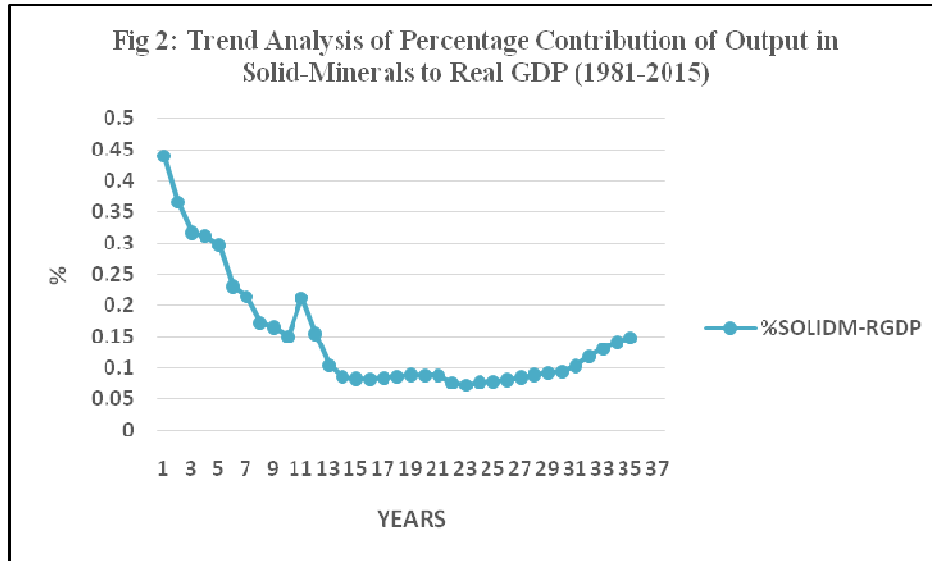


Source: Author's Computation using Microsoft Excel 2010

The figure shows that Agriculture/Agro-Allied sector has been on the increase in terms of its contribution to RGDP. From 1981 to 2005, the

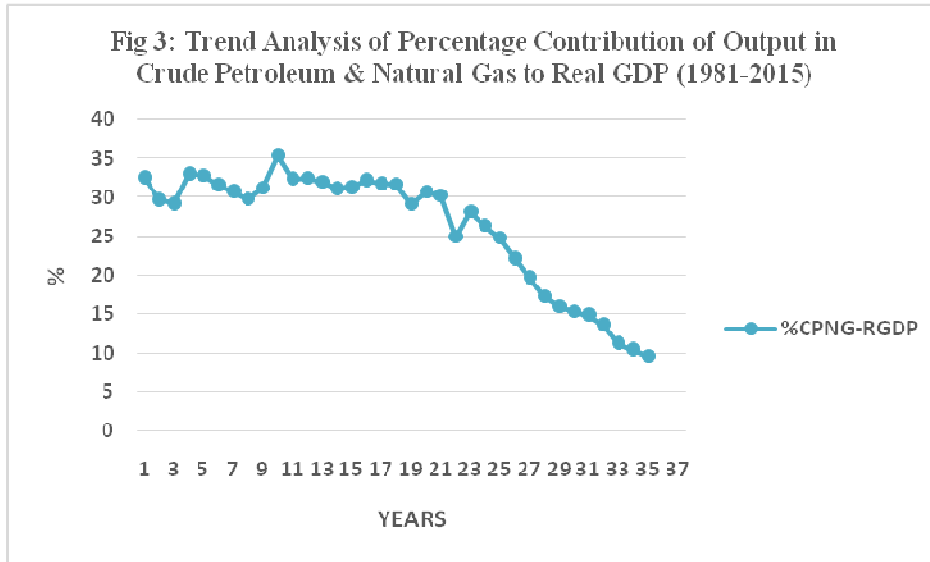
contribution of Agric/Agro allied resources to Real GDP in Nigeria has been having a slow and insignificant increase. It however jumped to its highest level in 2002 at 26.99483%, which has been the highest recorded under the period under review. Since then the contribution from agro industries has recorded slow decrease. More so, the contribution of Agriculture/Agro-Allied resources to RGDP was at its lowest ebb in 1981 with 15.49595% followed by 16.18918% in 1982. By 2001 it has increased to 19.988536%. However, the increase has not been stable with 20.43614% in 2000, 19.88536% in 2001, 25.38102% in 2004, 23.8937% in 2010, and 23.11114% in 2015.

More so, Figure 2 below shows the percentage (%) contribution of Solid Mineral Resources to Real Gross Domestic Product (RGDP). The contribution of solid minerals to the economy has been low. In 1991, the contribution of solid mineral jumped to 0.212738% and thereafter has been decreasing steadily from 0.155984% to 0.104278% in 1992 and 1993 respectively, but maintained a steady rate of decrease from 1994 with 0.086158%, however in 2011 it increased to 0.103316%, to 0.118689% in 2012, 0.131082% in 2013, 0.141788% in 2014 and 0.148563% in 2015. Also, the table revealed that during the period under review, the extent of exploitation of Solid Mineral and its contribution to the RGDP has been minimal, given that its trend has been less than 1% from 2000 to 2015. The figure shows that the highest percentage contribution of the Solid Mineral to Real GDP was 0.44001% in 1981, with the lowest being 0.073155% in 2003.



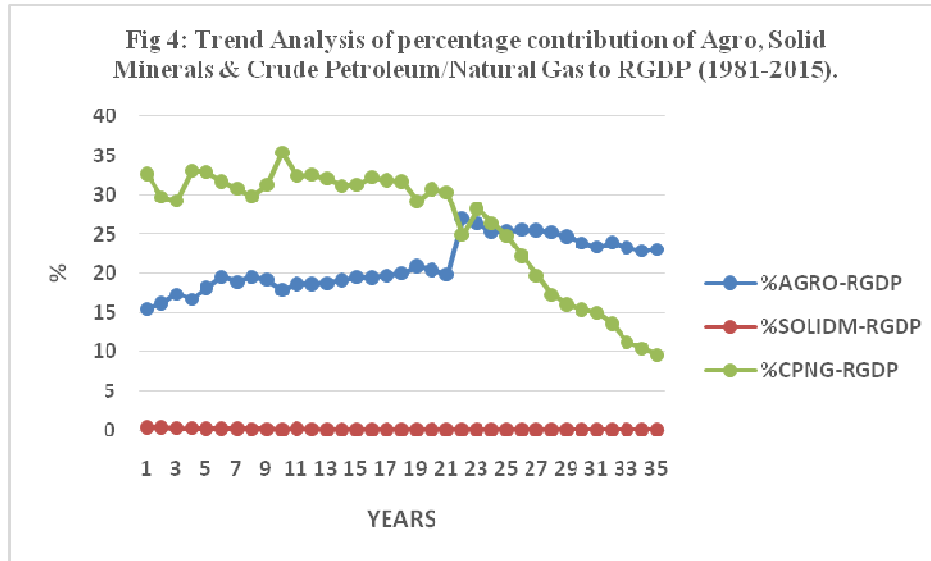
Source: Author's Computation using Microsoft Excel 2010

Furthermore, Figure 3 below shows the percentage contribution of Crude Petroleum & Natural Gas (CPNG) to Real GDP. It reveals that CPNG contribution to GDP has not been steady as it has been nose-diving with its highest contribution of 35.38743% in 1990 followed by 33.08739% and 32.88954% in 1984 and 1985 respectively and with a lowest percentage contribution of 9.605312% in 2015. This indicates a decreasing percentage contribution to the Real Gross Domestic Product.



Source: Author’s Computation using Microsoft Excel, 2010

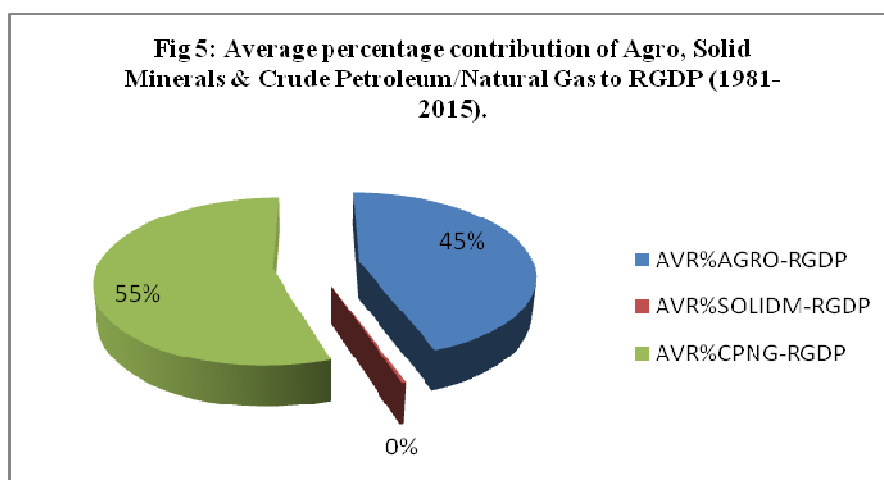
Figure 4 shows the comparative analysis of percentage contribution of Agro resources, Solid Minerals and Crude Petroleum and Natural Gas to the Real Gross Domestic Product of Nigeria. This was in a view to assess the trends and patterns associated with each of the resource sector contributions to the Real GDP. Accordingly, it shows that the percentage contribution of the Agricultural/Agro resources sector to the Real GDP is quite significant with a minimum of 15.49595% in 1981 and a maximum of 26.99483% in 2002.



Source: Author’s Computation using Microsoft Excel, 2010

However, the solid minerals sector has always been low with a maximum contribution of 0.44001% in 1981 and a minimum of 0.073155% in 2003 within the period under review. This in turn has significantly hindered the sector’s capacity in facilitating the enhancement of the Real GDP for socio-economic development. More so, the figure shows that the percentage share contribution of Crude Petroleum and Natural Gas to GDP is characterized by a decreasing trend although relatively higher than that of Agriculture/Agro resources sector. This is because the exploitation of CPNG over the period may not have had commensurate efficiency in its contribution to the Real GDP. This implies that even though the percentage of CPNG seems to be higher than that of Agro resources, with the trend it is evident that the percentage contribution of the CPNG portrays a decreasing rate with its maximum percentage contribution of

35.38743% in 1990 and a minimum of 9.605311889% in 2015, when its contribution to the national economy's RGDP is for a fact expected to be rising, while on the other hand, the percentage contribution of agro resources as shown records a slow but increasing trend.



Source: Author's Computation using Microsoft Excel 2010

Figure 5 shows the average percentage contribution of Agro, Solid Minerals and Crude Petroleum/Natural Gas to Real GDP within the period under review. The figure shows that whereas CPNG has contributed to the Real GDP by 55%, Agriculture has contributed 45% with solid minerals contributing only 0.14954%.

From the foregoing analysis, it becomes evident that the solid minerals contribution to the RGDP with less than 1% is significantly low as a result of negligence of the sub-sector. This finding is corroborated by David, Noah & Agbalajobi (2016) and Adesoji & Sotubo (2013). Also, the contribution of agricultural/agro allied resources to the RGDP of the country has been experiencing a gradual increasing but fluctuating trend

due to the dependence on crude oil and negligence of the agricultural sector. On the other hand, although CPNG is the largest contributor to RGDP, it has also been experiencing a decreasing trend in recent years. The decreasing contribution of CPNG in recent years may not be unconnected to: the fall in the price of crude oil at the international market; the disruption of oil production and economic sabotage by militants in the Niger Delta; the dependence on fuel imports in Nigeria due to the comatose state of local refineries which impedes the growth of petroleum and allied industries; and lastly the current drive towards alternative energy sources such as solar, wind and hydro. In buttressing this, the Nigeria Natural Resource Charter in its 2014 Benchmarking Report suggests that United States oil imports from Africa plunged to a 40-year low in 2014 by virtue of higher US domestic yields of oil. The June 2014, first quarter reports compared to that of the same period in 2013 showed that the drop in US oil imports from Nigeria alone were valued at \$2.7 billion (~~₦~~476 billion naira). This precarious situation has severe implications on the capacity of the economy to sustain the contribution of crude oil to the Real Gross Domestic Product and over all socio-economic development of the country.

CONCLUSION

The abundance of natural resources in Nigeria shows that the country has great potentials and prospects for economic prosperity. It however becomes paradoxical that in the midst of these abundant natural resources the country remains largely a mono-cultural economy, with infrastructural deficit, mass unemployment and pervasive poverty. This is largely associated with the challenges inherent in natural resource exploitation in the country; most prominent among others is the dependence on crude oil and gas exploration. This situation has become the bane of Nigeria's development challenges as solid minerals and agricultural resources are jettisoned thereby impeding the growth of the agricultural, mining and

manufacturing sectors of the economy. This corroborates the position of Echeme and Ubani (2010) that undiversified economy and reliance on crude oil has limited the growth of the agricultural and mining sub sectors in Nigeria. More so, the dependence on crude oil has culminated in severe sustainable development challenges for the country, especially with regards to the large scale environmental degradation in oil producing communities and associated social unrest, militancy, vandalism of oil assets and struggle for resource control in the Niger Delta region which further accounts for the decreasing trend in CPNG contribution to RGDP as corroborated by Adesopo & Asaju, (2004) and Chijoke (2009). It is worth noting here that the decreasing trend in the contribution of CPNG and increasing but fluctuating trend in the contribution of Agriculture/Agro-Allied to the RGDP does not indicate a deliberate drive towards diversification and revamping of the agricultural sector but on the contrary a direct offshoot of the declining price of crude oil at the international market and disruption of oil production by militants in the Niger Delta. The implications thereof on socio-economic development is far reaching, for instance the current recession in Nigeria and the challenges of implementing the 2016 budget is directly linked to the global fall in crude oil prices. To this end, a sudden rise in the price of crude oil and a sharp decline in disruption of crude oil production by Niger Delta militants would usher in arising trend in the contribution of CPNG to the RGDP.

Hence, the abundant solid minerals and agricultural potentials lying fallow in the country if fully harnessed would immensely contribute to the country's foreign exchange and Gross Domestic Product and salvage the country from the crude oil resource curse and economic stagnation. In the light of the following, to ensure sustainable socio-economic development, the Nigerian government needs to deliberately pursue diversification of the economy away from crude oil by venturing into the exploitation of the abundant reserves of mineral and agricultural

resources. As catalyst to socio-economic development, the growth of the mining, agriculture and manufacturing sectors, will ensure backward - forward linkages and complementarity in the economy. This in turn would create real socio-economic value in increased local production, promotion of local industrialization, reduction in importation of finished goods, employment creation, infrastructural development and increasing the standard of living of the citizenry.

RECCOMENDATIONS

From the foregoing submissions, the study recommends that:

1. The federal government looks beyond crude oil and diversify the economy by increasing investments in the agricultural, mining, and tourism sectors while providing incentives and Social Overhead Capital (SOC) for private sector investors.
2. The government as a matter of necessity needs to encourage non crude oil exports while removing structural rigidities to enhance business climate reform.
3. There is urgent need for massive investment and expansion of the steel industry to aid local manufacturing capacity and industrialization.
4. Aside crude oil exploration, the government and private sector should invest in boosting domestic refining of crude as this would create value added goods and service provision in petroleum allied industries and in the process creates employment.
5. In a bid to stabilise the dwindling oil production capacity in the country the government needs to proffer lasting solution to the Niger Delta development crises.
6. Natural resource exploitation should be pursued within the context of sustainable development especially with regards to the crude oil industry. Environment friendly practices should be imbibed by Oil

Companies while government must strictly enforce environmental protection laws and policies guiding operations of the extractive industry.

7. There should be transparency and accountability with the management of wealth accrued from natural resource exploitation. This should encompass equitable distribution of societal wealth for sustainable socio-economic development and improved standard of living.

REFERENCES

- Adesopo, A.A and Asaju, A. S. (2004). Natural Resource Distribution, Agitation for Resource Control Right and the Practice of Federalism in Nigeria. *Journal of Human Ecology*, 15(4): 277-289.
- Adesoji A.A and Sotubo O.D (2013). Non-Oil Exports in the Economic Growth of Nigeria: A Study of Agricultural and Mineral Resources. *Journal of Educational and Social Research*, 3 (2):403-418.
- Aluko, S. (1971): Industrialisation in Nigeria. *Quarterly Journal of Administration*, IX (2).
- Anyanwu J.C., Onyefusi A., Oaikhenan H., and Dimowo F.A. (1997). *The Structure of the Nigerian Economy*. Onitsha: Joanee Educational Publishers Ltd.
- Bradshaw. M.J. (2005). Population Resources, Development and the Environment, In: Daniels, P.E. et al (eds.) *An Introduction to Human Geography: Issues for the 21st Century*. Onitsha: Joanee Educational Publishers Ltd.
- Barlowe, R. (1978). *Land Resource Economics*, 3 ed. New Jersey: Prentice-Hall Inc, Englewood Cliffs.
- Bridge. G. (2008). Economic Geography Natural Resources, In: International Encyclopedia of Human Geography (eds). Kitchen and Thrift: Elsevier.
- Central Bank of Nigeria (2015). *Statistical Bulletin and Annual Report*.
- Central Bank of Nigeria (1995). *Statistical Bulletin and Annual Report*.

- Chijioko Evoh J. (2009). Green Crimes, Petro-violence and the Tragedy of Oil: The Case of the Niger Delta in Nigeria. *In-Spire Journal of Law, Politics and Societies*, 4 (1): 12-19.
- David, O.O, Noah, O.A and Agbalajobi, S.A (2016). An Empirical Analysis of the Contribution of Mining Sector to Economic Development in Nigeria. *Khaza Journal of Humanities Social Sciences*, 19 (1): 88-106.
- Echeme, I.I and Ubani E.C. (2010). A Correlation of Natural Resource Management and Level of Development in Developing Countries: A Case of Nigeria. *Report and Opinion 2010*, 2 (7): 31-39.
- Eneh, O.C. (2006). Corruption and Dwindling Productivity in Nigeria – An Analytical and Introductory Overview, In Nwosu, I.E. and Eneh, O.C. (eds.) *Managing Job Ethics and Productivity in Nigerian Universities*, IDS Development Management and Practice Series, No.1: 1-34, Enugu: Institute for Development Studies, 2006.
- Gyang, J.D. Nanle, N. Chollom, S.G. (2010). An Overview of Mineral Resources Development in Nigeria: Problems and Prospects. *Continental Journal of Sustainable Development*, 1:23-31.
- Jack, Jackson T.C.B (2014). Indigenous Knowledge and Biodiversity Conservation in Kalabari Rural Communities: Implications for Environmental Conservation in the Niger Delta. Dept of Sociology, University of PortHarcourt, Unpublished MSc Thesis.
- Mahtani, D. (2008). The New Scramble for Africa's Resources. *Financial Times Special Report*, 28 January, pp. 1-6.
- Murtala, C. (2011): An Extensive Analysis of Mining in Nigeria Using a GIS. *Journal of Geography and Geology*, 3 (1): 20-31.
- Nigeria Natural Resource Charter (2014): *Summary of the 2014 Benchmarking Report*.
- Okeke, C.N. (2008). Geology and Mineral Resources: Blessing or Curse? *The International Lawyer*, 42 (1); 193-210.

- Romer, P.M. (1996). 'Why, Indeed, in America? Theory, History, and the Origins of Modern Economic Growth', *American Economic Review*, 86 (2): 202–212.
- The Week*, April 30, 2001, p. 13.
- UNCTAD (United Nations Conference on Trade and Development, 2007). World investment report 2007: transnational corporations, extractive industries and development. New York and Geneva: United Nations.
- Wright, G. 1990, 'The Origins of American Industrial Success, 1879–1940', *American Economic Review*, 80 (4): 651–668.