

COVID-19 IMPACT STUDIES ON THE NATURAL RESOURCES SECTOR OF FIVE ANGLOPHONE COUNTRIES IN WEST AFRICA

THE NIGERIA REPORT

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Being

Contribution of the African Policy Research Institute (APRI) to the FORD FOUNDATION sponsored ISODEC study on Impact of COVID 19 on the five Anglophone countries in West Africa.

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LIST OF ACRONYMS

African Policy Research Institute	APRI
Downstream Petroleum Regulatory Agency	DPRA
Illicit Financial Flows	IFF
Integrated Social Development Centre	ISODEC
International Oil Company	IOC
Ministry of Mines and Solid Minerals Development	MMSMD
Ministry of Mines and Steel Development	MMSD
National Centre for Disease Control	NCDC
National Nuclear Regulatory Authority	NNRA
Nigeria Extractive Industries Transparency Initiative	NEITI
Nigeria National Petroleum Corporation	NNPC
Petroleum Industries Bill	PIB
Public Health and Social Measures	PHSM

1.0 INTRODUCTION

1.1 Background of the Study

This study evaluates the impacts of COVID-19 on Nigeria's economy, especially how the government responded to the pandemic and the impacts of the public health and social measures (PHSMs) on the national economy, individuals, households and businesses. It examines the economy-wide effect of the demand and supply shocks of COVID-19 on Nigeria's economy with particular interest in how the natural resource / extractive industries sector was impacted and the implications for the medium to long run development of the sector. Also, it reviews the effect of the COVID-19 pandemic on the people living in the extractive industries communities and tries to identify ways to reduce the country's vulnerabilities to enable the economy to progress towards sustainable development in the middle to long term. It, therefore, evaluates among others, the current and potential impacts of COVID-19 on the extractive industries' sector, noting in particular, revenues, contracts; tax settlements; investments, Illicit Financial Flows (IFFs) and macroeconomic aggregates like expenditure priorities, employment, debt and environmental sustainability. It also reviews the effect of COVID-19 on livelihood issues in host communities of the extractive industries such as income and access to health care, education, water and sanitation and the gender disaggregated effects of employment in particular. In addition, it evaluates the effectiveness of fiscal and macroeconomic policies implemented to mitigate the effects of the COVID-19 on the economy and livelihood of the people. This study is undertaken by Integrated Social Development (ISODEC) with funding from the Ford Foundation-Nigeria Office. Other countries included in this study are Ghana, Liberia, Sierra Leone and The Gambia.

Apart from this introduction, the rest of this paper is structured as follows: Part two contains conceptual issues, area and method of study and method of data collection. Part three examines the structure of the Nigerian economy showing the importance of natural and extractive industries in Nigeria's economy with regards to contribution to jobs, export, revenue and GDP. Part four looks at government response to COVID-19, effects on the economy and mitigation measures, part five is on impact of COVID-19 on the extractive industries sector and governance of the sector and in part six the results of the survey are presented and discussed. Part seven is on efforts of the government to address the second wave of COVID-19 in Nigeria and part eight is for summary, conclusions and recommendations.

2.0 THEORETICAL CONCERNS AND METHOD OF STUDY

2.1 Conceptual Issues

The novel coronavirus disease (COVID-19), the SSR2 virus infection which was first diagnosed in Wuhan China towards the close of 2019, quickly spread to several countries in west and eastern Europe ravaging lives and livelihood on its trail. Consequently, the World Health Organization (WHO) on 30th January declared it a public health issue of serious concern. The first case in Africa arrived in Egypt on 14th February, and within two months, the disease had spread to every country in Africa,

mostly entering capital cities through international flights from Europe and spreading from there through community transmission. COVID-19 was declared a global pandemic on 12 March and it opened a new vista in the economic analysis of public health care and the health status of citizens. Before the emergence of COVID-19, economic analysis of health care mainly centred on the opportunity cost of resources employed in the health sector vis a vis consumption, investment and productivity effects of health care financing and the health status of citizens (Soyibo 2005, Obansa et al. 2013, Idees and Olaniyi, 2020 etc). However, in the case of COVID 19, its mode of spread, rate of infection and unprecedented death toll within a short time led governments around the world to impose drastic mitigation measures which changed the transmission mechanism between the disease and the economy. These include restricting local and international travels/movements, closing down of factories, shops and recreation centres all of which culminated in shutting down the global supply chain. The dynamics of these measures generated internal and external economic shocks that affected social and economic activities of countries around the world devastating the economies of developing economies that depend mainly on extractive industries for government revenue, and foreign exchange. This study, therefore, seeks to fully understand the current and potential impact of the pandemic on the extractive industries' sector and the implications for sustainable development in the 5 anglophone countries in West Africa.

2.2 Area of the Study

This paper is an analysis of the impact of COVID-19 pandemic on the Nigerian economy with emphasis on the natural/extractive industries sector and the focus is on the contributions of Crude Oil, Gas and Gold being the three most important minerals exploited in Nigeria. Nigeria is made up of six geopolitical zones, 36 states and Federal Capital Territory and 774 Local Government Areas (LGAs). According to the 1999 constitution, as amended, the federal government is vested with the authority to administer the mining of all mineral deposits in Nigeria. However, oil and gas occur only in eight (8) states namely; Edo, Delta, Rivers, Bayelsa, Cross River, Akwa Ibom, Imo and Ondo States while gold deposits are found in Zamfara, Kaduna, Kwara, Kebbi, Niger, Kogi, Ogun and Osun states. Given the available budget and time frame of this study, however, only 2 oil and gas producing communities in two LGAs each of Edo and Delta states were sampled. The LGAs are Orhionwon and Ikpoba in Edo State and Isoko and Ethiopie in Delta. Also, only 2 gold mining communities in Atakunmosa and Obokun LGAs of Osun state were sampled. Safety and logistic considerations influenced the choice of the states and communities selected for this study. Also, regulatory and other stakeholder institutions in Oshogbo, Osun state and Abuja the federal capital were included in the survey.

2.3 Method of Study

This study employs a combination of library research and survey methods to generate the information required to achieve its objectives. Hence information was sourced from secondary sources like textbooks, journals, research reports and periodicals while primary data were generated through surveys and structured interviews. Information on macroeconomic variables were largely obtained from secondary sources while those that relate to the effect of the pandemic on residents of extractive industries, communities and regulatory agencies were obtained through survey methods and structured interviews.

2.3.1 Methods of Data Collection and Analyses

a.) Sampling and Sampling Frame

This study employed stratified sampling technique to select respondents after the states and communities visited were purposively selected. Stratified sampling technique is the most suited technique for this kind of survey since it allows us to divide the population into smaller groups or strata with similar characteristics as they relate to the study's objectives. Hence respondents were grouped into community leaders, mine workers, service providers and other households living in the mining communities. For each group, a number of questionnaires were allocated based on the weight given to the group before each respondent was selected. Stratified random sampling is a more precise metric since it is a better representation of the overall population. The total number of questionnaires administered in the communities is only 156, limiting its representativeness. This was divided among the three sets of survey instruments designed and administered in each community. These are questionnaires for oil company workers/artisanal miners in the gold mines which we gave to 28 percent of the respondents. Within the group, 57 percent was allocated to workers in the gold mines and oil drilling platforms while the officials had 43 percent. The second group is the household in the community which had 48 percent of the total respondents. Within the group, households whose businesses were to provide services to mine workers had 50 percent and other residents had 50 percent of what was allocated to the group. The third group is the community leader's group which constituted 20 percent of the respondents. In this group which included traditional rulers, women and youth leaders and the chairman and the head of finance of LGAs, respondents were purposively selected. Each research assistant was allowed to use his discretion to allocate the last questionnaire to any of the groups depending on the peculiarities of the location visited. All the questionnaires were divided equally among the six local governments hence two-thirds of the questionnaires were administered in oil-bearing communities while one-third went to gold-bearing communities. In addition, with the assistance of the National Bureau of Statistics (NBS), another instrument was designed and given to regulatory authorities and responses were obtained from the Nigeria National Petroleum Corporation (NNPC), Downstream Petroleum Regulatory Agency (DPRA), Ministry of Mines and Steel Development (MMSD), Nigeria Extractive Industries Transparency Initiative (NEITI), the National Nuclear Regulatory Authority (NNRA) and a representative officer of an International Oil Company (IOC) while a representative of the office of Natural and Mineral Resources, Osun State was interviewed.

b.) Targeted Respondents

The target respondents were workers who operated the oil drilling platforms and gold miners and other workers at the mines, service providers, residents of the mining communities, traditional and LGA officials and regulatory authorities of the mineral sector and other stakeholder institutions.

3.0. IMPORTANCE OF EXTRACTIVE INDUSTRIES IN NIGERIA'S ECONOMY

Nigeria has a population estimated as 200 million. She has the largest economy in Africa and her economy is gradually transforming from Agriculture to the Service Sector which contributed between 35 and 36.36 percent of the gross domestic product from 2013 to 2017 (see table 1).

Table 1: Sectoral Contribution to Gross Domestic Product in Nigeria from 2013 to 2017

Activity Sector	Percentage Share of Total Real Gross Domestic Product				
	2013	2014	2015	2016	2017
Agriculture	23.33	22.90	23.11	24.45	25.08
a) Crop Production	20.96	20.54	20.68	21.93	22.54
b) Lives Stock	1.63	1.62	1.67	1.74	1.76
c) Forestry	0.24	0.24	0.24	0.25	0.26
d) Fishing	0.24	0.24	0.24	0.25	0.26
Industry	20.59	20.54	19.30	17.76	17.99
a) Crude Petroleum & Natural Gas	11.24	10.44	9.61	8.35	8.68
b) Solid Minerals	0.13	0.14	0.15	0.13	0.13
c) Manufacturing	9.22	9.95	9.54	9.28	9.18
Construction	3.59	3.82	3.88	3.71	3.72
Trade	16.62	16.57	16.95	17.18	16.86
Services	35.87	36.17	36.76	36.91	36.36
Information and Communication	10.73	10.81	11.17	11.57	11.35
Professional, Scientific and Technical Services	7.76	7.68	7.63	7.22	6.85
Others Services	17.4	17.86	17.73	18.12	18.16
Total	100	100	100	100	100

Source: Central Bank of Nigeria (2017) 2017 Annual Report.

The contribution ascribed to the Service Sector is largely attributed to the share of information and communication as well as professional, scientific and technical services both of which take about 50 percent of the share of the Service Sector annually during the period. However, the transformation of the economy to service sector dominance is not backed by a corresponding increase in manufacturing activities as the manufacturing sector stagnated over the period contributing approximately nine (9) percent of GDP (Table 1). Hence agriculture which produces 25 percent of GDP is still the highest employer of labour as 90 percent of the output of the sector is generated from crop production majorly by peasant farmers using labour-intensive technology. The extractive industries category of the industrial sector which contributes nine (9) percent of GDP (Table 1), contributes about

60 percent of government revenues Table 2, and approximately 80 percent of foreign exchange income in the economy. The level of dependence on the oil sector for government revenue is even higher at the sub-national levels as most states derive over 90 percent of revenue from the oil and gas sector alone. Table 2 and Fig 1 however, show that as the capacity of the oil sector to generate revenue reduced the total revenue that accrued to the federation account declined between 2013 and 2017. The economy is therefore mono-cultural and highly susceptible to external shocks particularly those that affect the price and or quantity of oil and gas produced or demanded.

According to the ILO (2005), the oil industry created over 65,000 direct jobs in Nigeria and more than 250,000 jobs in non-direct employment. However, in its 2018 audit report, the Nigeria Extractive Industries Transparency Initiative, (NEITI) stated that employment in the oil industries accounted for 19,820 employees which is 0.03 percent of Nigeria’s 69.54 million labour force in 2018 (This Day 7th August 2018). The gender disaggregation of the total employment in the oil sector in 2018 shows 3,595 or 18 percent female employees and 16,225 or 82 percent male employees. Between 2014 and 2017 the industrial sector declined from 20.54 percent to 17.99 percent in 2017 due to the 2014 oil price shock from which the economy had not recovered before COVID-19 struck.

Table 2: Composition of Revenue to the Federation Account from 2013 to 2027

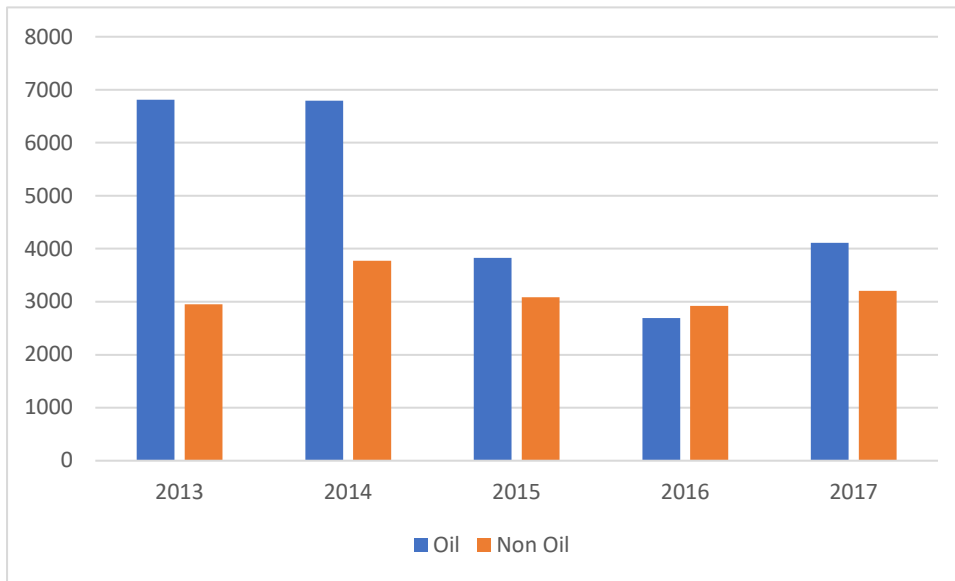
	2013	2014	2015	2016	2017
Oil	6809.2	6793.8	3830.1	2693.9	4109.8
percent contribution	75.3	64.3	55.4	48.0	56.1
Non-Oil	2950.6	3775	3082.4	2922.5	3207.9
percent contribution	24.7	35.7	44.6	52.0	43.9
Total	9093.8	10,568.8	6,912.5	5,616.4	7,317.7

Source: Central Bank of Nigeria (2017) 2017 Annual Report.

Consequently, the contribution of crude petroleum and gas fell from 11.24 to 8.68 percent in 2017 while the manufacturing sub-sector experienced stagnation. Thus, manufacturing which is the traditional sector for generating massive middle-income employment in an economy is weak and this limits the employment generating capacity of the economy.

Table. 1 also shows that solid minerals contribute a negligible (0.13 percent) proportion of the GDP though, the Federal Ministry of Mines and Steel Development has identified 44 mineral deposits of various degrees of commercial viability across the 36 states and the Federal Capital Territory. This is because the sector is underdeveloped and largely operated by informal, small scale and artisanal miners most of whom operate without licence.

Figure 1: Composition of Revenue to the Federation Account from 2013 to 2017



Source: Central Bank of Nigeria (2017) 2017 Annual Report.

4.0 GOVERNMENT RESPONSE TO COVID-19 AND IMPACTS ON THE ECONOMY

4.1 Government Response to COVID-19 in Nigeria and Mitigation Measures

After spreading rapidly from China to Europe and America ravaging lives and livelihood, the index case of COVID-19 arrived in Lagos the commercial capital of Nigeria, and the adjoining Ogun states on February 27, 2020. The disease quickly spread to about four states within a week and later to all 36 states and the Federal Capital Territory but one. The arrival of the pandemic in Nigeria set off a chain of policy actions, including public health and public education campaigns, fiscal and monetary measures and unprecedented restrictions on large sections of the economy. A Presidential Tax Force (PTF) on COVID-19 was set up immediately to coordinate government response and the National Centre for Disease Control (NCDC) was strengthened with additional funding of \$27 million. This facilitated public campaigns by the NCDC emphasising; hand washing, social distancing and avoidance of large gatherings while testing capabilities in the country were increased rapidly. The response also included emergency measures like National and State lockdowns as well as restrictions imposed on large gatherings in all but two states of the Federation. The NCDC also embarked on training and deployment of medical personnel and expansion of facilities for the care of those affected by the disease. These measures which lasted a minimum of eight (8) weeks affected the day-to-day social and economic activities of residents and shut down the supply chain of non-food and drugs items with grave consequences on means of livelihood. Furthermore, the global nature of the infections necessitated similar measures across the globe hence the global supply chain was shut down. This affected economic activities across the globe, leading to loss of jobs and means of livelihood.

4.2 Impact of COVID-19 on Selected Macroeconomic Variables in Nigeria

As a result of the above measures, global demand for nearly all commodities except those needed for human survival, care of COVID-19 infected persons and prevention of further spread of the disease, declined. Consequently, global demand for oil and gas and other minerals and ores fell as the factories to work them were largely shut down. Hence COVID-19 affected foreign exchange earnings of extractive industries dependent economies and reduced their government revenue. On the supply side, observance of similar protocols in all local mines and drilling sites meant the loss of man-hours leading to productivity and income losses by the mining companies and their workers. To mitigate the effect of all these shocks on the economy and the livelihood of residents, the government designed and implemented fiscal, monetary and compensating measures in the form of social protections for the poor and vulnerable (Abayomi 2020, Andam, Edeh, Oboh, et. all 2020). However, notwithstanding these medical and non-medical efforts, the number of confirmed cases of COVID-19 in Nigeria had risen to 116,655 as at 21st January 2021 with 1,485 deaths and 93, 646 discharges. The number of new cases recorded on the date was 1,964. Also, the Nigerian economy declined by 6.1percent year-on-year by the fourth quarter of 2020 and the unemployment level stood at 33.3 percent which amounts to 25.8 million unemployed, the deepest level in ten years (NBS 2021).

Existing evidence suggests that the immediate impact of COVID-19 on the economy is transmitted via three major channels, with potentially significant adverse effects on household incomes, demand for goods and services, and the economy's output in 2020 (Andam, Edeh, Oboh, et all (2020). These channels are the government budget on both the income and expenditure sides, remittances to individuals and the impact of movement restrictions on the people and business activities. In addition, in the middle to long term, loss of profit may lead investors to re-evaluate their investment portfolios and divest in some of their assets. This could lead to an increase in capital outflow through legitimate or illicit channels while foreign direct investment inflow may reduce. The effect of these channels on Nigeria's economy is discussed below.

4.2.1 Implication of the COVID-19 Pandemic on Oil and Gas Sector

The slowdown in economic activities across the globe due to the lockdown measures led to a global fall in the demand for crude oil causing a glut in the crude oil market. Nigeria's export market is dominated by gas and oil commodities which constitute 93% of all exports, made up of mainly crude petroleum (76%). The high cost in the production of Nigeria's crude oil coupled with the general decline in global demand led to a decrease in demand for Nigeria's Crude Oil and a decline in the price barrel. Hence the price of crude oil declined to 18-year-low as Nigeria's Brent sold at \$27 p/b which is \$30 p/b less than the benchmark price of \$57 p/b upon which the 2020 budget was planned. In addition, Nigeria could not find a market for all her crude oil as the United States for example, reduced importation of Nigeria's crude oil by 11.67million barrels in the first five (5) months of 2020 when compared to the same period of 2019. These twin shocks compounded already existing crises in the crude oil sector (Table.1) and resulted in a significant shortfall in government revenue and foreign exchange earnings. The decline in demand and the revenue loss is associated with a high supply of crude oil against the low demand. This has increased the utilisation of Nigerian Foreign reserves while leading to the increased devaluation of the Naira negatively affecting Nigeria's macro-economic outlook. Other manifestations of the COVID-19 impacts on the oil and gas sector are in the form of

general buyer scarcity, the declaration of force majeure by the DPR, forcing a decision to cut down on sector-based development projects further leading to the loss of jobs (J.S. Afaha et. al, 2021).¹

4.2.2. Implication of COVID-19 on 2020 Budget Performance and Mitigation Measures

According to the NBS, the revision of the Federal Government 2020 budget due to a fall in oil price below the initial benchmark of \$57 to almost \$28 per barrel, contributed to widening the fiscal deficit, thus posing a challenge for fiscal sustainability in the near future. Another dimension resulted in higher budgetary allocation to the health sector occasioned by the pandemic which intensified the need for a higher level of annual budgetary allocation to the health sector to further enhance their operational readiness in challenging times in the health sector. All these have the potential to slow down the GDP growth of global/national economies, and possibly result in recession.

To mitigate the effect of the COVID-19 pandemic on companies operating in Nigeria, the Federal Inland Revenue Service (FIRS), extended the due date for filling of the companies' income tax returns by one month among other tax relief measures approved on 25th of March 2020 (Obayomi 2020). These measures adversely affected government revenue from oil and non-oil sources. Consequently, the Ministry of Finance, Budget, and National Planning revised downwards the estimated Net Oil and Gas Revenue to be available for Federation Account Allocation Committee by 80 percent from N5.47 trillion to N1.12 trillion, despite N649bn reduction in allowable fiscal deductions by NNPC for Federally funded projects/expenditures. Estimated Customs revenue was reviewed downwards from N1.50 trillion to N1.156 trillion; and the amount expected to accrue to the VAT Pool Account also declined by N60.42 billion from N2.089 trillion to N2.029 trillion. Thus the amounts expected to accrue to the Federation Account decreased by 4.678 trillion from N8.572 trillion to N3.890 trillion; projected Federal Government's receipt from the Federation Account (Main pool and VAT pool) reduced to N2.353 trillion from N4.829 trillion while the estimated receipts by States and Local Governments declined from the Federation Account (Main pool and VAT pool) from N3.335 trillion and N2.497 trillion to N2.054 trillion and N1.512 trillion respectively (Akabueze 2020).

At the same time, the federal government faced significant pressures to increase spending in areas not previously budgeted for, including an estimated NGN 1.1 trillion towards the COVID-19 disease preparedness and response and stimulus or palliative measures of NGN 2.4 trillion (CBN 2020). The Government responded to these by revising the 2020 budget downwards by N1.5 trillion, and \$130 million was released to support households and Small and Medium Scale Enterprises, planned increase in electricity tariff was delayed till the end of the lockdown and petroleum pump price was reduced by N20 per litter during the lockdown, etc. Furthermore, the Central bank of Nigeria (CBN) gave an additional moratorium on CBN facilities, the interest rate on such facilities was reduced from 9 percent to 5 percent and N1.5 trillion Infraco project for critical infrastructure was activated and an additional N100 billion was raised for health care sector loan facility including pharmaceutical companies. In addition, a N1.tr. loan was activated to boost local manufactures and production across

¹ J.S. Afaha, E. Aderinto, E.A Oluwole, A. Oyinlola, Y Akinitola "Effecto of COVID 19 on the Nigerian Oil and Gas Industry and Impacton the Economy" Research Gate. https://www.researchgate.net/publication/349732971_EFFECT_OF_COVID-19_ON_THE_NIGERIAN_OIL_AND_GAS_INDUSTRY_AND_IMPACT_ON_THE_ECONOMY

critical sectors (Olatokewa 2020, Obayomi, 2020). To finance these, the government raised N2.381 trillion or USD6.593 billion made up of USD3.36 billion Budget Support Loan from the International Monetary Fund, New Domestic Borrowing to finance the Revised 2020 Appropriation Act including the issuance of the N162.557 billion Sukuk, and Promissory Notes issued to settle claims of exporters. Consequently, Nigeria's total debt profile rose to N31.009 trillion (\$85.897 billion) as of June 30, and 32.915 as at 31st Dec 2020 from N28.628 as at March 31st 2020 (DMO 2021). This amount is expected to grow further as the balance of the new borrowing arranged to finance the 2020 Budget is disbursed by the World Bank, African Development Bank and the Islamic Development Bank.

On the other hand, a total of 287.04 million was spent on external debt servicing out of which the principal took 70.27 million while the remaining was spread on fees and interest from March 31st to June 30 2020 (Iyatse 2020). The combined effects of low revenue performance, higher government spending and increased borrowing from abroad, not only slowed down the GDP growth rate but led to economic recession in 2020 and may affect the nation's fiscal sustainability in the near future. Consequently, the non-oil sector declined by 6.05% in real terms during the second quarter of 2020. It was the first decline in real non-oil GDP growth rate since Q3 2017 (NBS 2020).

4.2.3 Impact on Diaspora Remittances

Income from remittances accounts for about five (5) to six (6) percent of GDP in Nigeria and the country relies on "major lock down states" like Britain, France, Italy, Spain, and the US for about 54 percent of it. (Andam, Edeh, Oboh, et al , 2020). The World Bank (2020a; 2020b) predicted a 23.1 percent decline of remittance flows into Sub Sahara Africa in 2020 due to COVID-19 and Nigeria being the largest recipient in Africa probably suffered a disproportionately high proportion of the decline. It has been shown that remittance payments account for about 6.1 percent of consumption in Nigeria hence a drastic fall in remittances may lead to a significant reduction in the welfare of remittances recipients. However, it accounts for a larger share of consumption expenditure for urban households (9.6 percent) than rural households (2.7 percent), and 98.7 percent of this goes to non-poor households (Andam, Edeh, Oboh, et al, 2020). Thus, remittance income shocks will most directly affect the wellbeing of non-poor and urban-based consumers. However, due to socio-economic linkages between urban and rural dwellers, reduction in remittances flow to urban dwellers will negatively affect transfers to rural dwellers and thereby rural consumption.

4.2.4 Implication on the Naira

The shortage of foreign exchange currencies in the country has caused the Naira to remain pressured, slipping from between N360 to N380.50/\$ official rate and over N450/\$ in the parallel market at the beginning of pandemic to over N500 to 1\$ as at August 2021 due to slowdown in global demand for oil and fall in oil prices caused by COVID-19. This shows a tremendous decline in the purchasing power of the Naira

4.2.5 Impact of COVID-19 on Labour Market, livelihood and Unemployment in Nigeria

It could be argued that in living memory, no health issue has demonstrated more dramatically the nexus between the economics of health and the health of economies like the coronavirus pandemic. Apart from the economic losses due to deaths and debility associated with the disease, the

containment measures of COVID-19 produced their own devastating effects on the economic and social lives of the people. The restrictions placed on the movement of persons and the closure of markets and business premises severely affected labour market activities and employment generation with dire consequences on peoples' lives and livelihood. This makes the lockdown measures a major channel through which the adverse effect of COVID-19 was transmitted in the economy.

a) Effects of COVID-19 on livelihoods:

The restrictions placed on movements, social gatherings and local and international travels adversely affected the domestic and global supply chain system except those related to agriculture, food and drugs manufacturing and distribution sectors. Consequently, non-food and drug production activities including extractive industries were disrupted resulting in lay off of staff or salaries slashing mainly by private organizations. It also increased transport cost, and the price of goods ((Kwameh et al 2020, Olatokewa 2020). Thus, between July and Dec. 2020, 83 percent of households reported an increase in the prices of major food items they consumed leading to widespread loss of purchasing power and welfare. The supply of basic needs was also affected as 20 percent of households reported insufficient drinking water in June while those with insufficient water to wash their hands in the last seven days was 6 percent in June 2020 but these situations improved to 10 percent and 2 percent respectively in November as the movement restrictions were relaxed in Nigeria (NBS, 2021). In addition, access to health care facilities was reduced while children could not go to school and some of the parents had no alternative means of giving education to their children. These hardships were endured by the general populace including those whose livelihood do not depend on the extractive industries sector.

b) Effect of COVID-19 on the labour markets, and unemployment:

According to NBS (2021), Only 43 percent of households, made up of 35 percent urban and 47 percent rural dwellers, worked with the pre-crisis level of employment between April and June 2020 in Nigeria. Around 17 percent of households who had non-farm businesses during the year 2020 were not operating them in December 2020, 11 percent of households with non-farm business were closed for at least one month between June and November 2020 and only 23 percent of households with non-farm business in 2020 operated them continuously during the year. Hence, Small and Medium Scale Enterprises that survive on daily sales could no longer meet their daily needs. According to Price Water House Coopers (2020), Small and Medium Scale Enterprises account for 96 percent of businesses and 84 percent of employment in Nigeria. Consequently, the unemployment rate was 27.1%, Underemployment was 28.6% Youth Underemployment was 34.9 % by the end of 2th quarter of 2020 (NBS,2020).

Impacts on prices-food, medicines, wages, etc

c) Impact on Gender

In Nigeria, women constitute a large proportion of those engaged in retail activities in the markets and other parts of the downstream segments of the supply chain. They also constitute the majority of hospital workers particularly nurses and those who provide janitorial and cleaning services in the hospitals. Thus, the disruption of the downstream segment of the supply chain and closure of hospitals and other service sectors disproportionately affected women's income adversely. Also, they

are more likely to be front-line health workers, especially as nurses, midwives and community health workers as such they are more likely to be exposed to the virus. According to the United Nations (2020), women's economic lives are disproportionately affected when compared to men and since they earn less, save less, hold less secure jobs, and are more likely to be employed in the informal sector, their access to social protections is weak. Hence, their capacity to absorb economic shocks is less than that of men. Furthermore, Nigeria already has the second-highest number of out-of-school girls in primary school in West Africa at 44%, only after Mali. This will worsen with COVID19 (OECD, 2020). In view of the above, the gender dimension of COVID-19 impact, especially for women in mining communities across Nigeria, is profound as markets and supply chains in the extractive industries communities have been disrupted, businesses have scaled-down or completely shut down operations, and some women have lost or are at the risk of losing their jobs and livelihoods.

Furthermore, COVID-19 pandemics made it more difficult for women and girls to receive treatment and health services. This is compounded by multiple or intersecting inequalities, such as ethnicity, socioeconomic status, disability, age, race and geography among other factors that influence access and decision-making on critical health services and information about COVID-19. Women and girls have unique health needs, but they are less likely to have access to quality health services, essential medicines and vaccines, maternal and reproductive health care, or insurance coverage for routine and catastrophic health costs, especially in rural and marginalized communities.

Restrictive social norms and gender stereotypes may also limit women's ability to access health services. All of these have particular impacts during the COVID-19 crisis. Women may be at risk or exposed due to occupational sex-segregation: In some areas, women have less access to personal protective equipment or correctly sized equipment. Despite their numbers, women are often not reflected in decision-making ranks as shown in Table 4 with only 35.3 percent of decision-makers in the communities as women.

d) Effect on Government Capacity to Deliver Social Services

Nigeria's current health expenditure per capita has been declining since 2014 as follows: \$107 in 2014, \$98 in 2015, \$79 in 2016 and \$74 in 2017 as against the WHO recommended per capita expenditure of \$86 and the sub-Saharan average per capita expenditure of \$32 (World Bank, 2020). However, she has an out-of-pocket health expenditure of 77% of the current expenditure. With COVID19, both the government and citizens are already facing high out-of-pocket health expenditures. This scenario, coupled with an under-funded and under-staffed health system poses a serious problem.

Therefore, the abrupt disruptions of critical public services (such as education, healthcare, and portable water) by the COVID-19 pandemic, induced governments at various levels, parents, individuals, and households to shift their sustainability plans and survival strategies. With reference to the education sector, the closure of public education institutions, occasioned by lockdown imposed by the government to curtail the spread of Covid19, portends significant implications for access to public education. The fall in household income, especially for those in the extractive industry, also made access to alternative educational platforms (such as online classes, Radio classes, and Television classes) difficult as parents were unable to procure laptops, android phones, television cables and other facilities required for accessing education through such alternative platforms. Furthermore, the depletion of government revenue accruable from the extractive industries implies that the

government's commitment towards the education system and other public services in the face of competing demands was adversely affected.

According to Thelma & Adedeji (2020), Learners in Nigeria also lost access to the daily meals made available by the federally-funded school feeding programs. Without any doubt, Nigeria has one of the largest school-feeding programs in the world, with the World Food Programme estimating that in 2019, Nigeria's Homegrown Schools Feeding Initiative provided access to daily meals to over 9 million children in over 40,000 public schools. The benefits of school feeding programs extend beyond the immediate education benefits of the meals provided, such as encouraging enrollment in schools, and boosting learning. School feeding programs yield larger socio-economic benefits for children, their families, and society at large, which are especially pertinent to children of low socio-economic groups: boosting their nutrition and health. For some learners, especially those from disadvantaged and vulnerable backgrounds, the daily meals provided at schools are their primary source of healthy and nutritious meals. With the closure of schools, over 9 million public school students were deprived of this benefit. Beyond feeding, Nigeria's feeding program also offers health services, including the application of anti-worm treatments and immunizations for learners in public schools across 17 states. Some homes in this category depend so much on this free meal to cater for their children because they have the opportunity to save little expenses to be incurred on their children, which in the long run are used to take care of other expenses in their homes. While the school were on lockdown, many parents in this category surely found it difficult to adjust because their children's welfare fully fell back on them coupled with the tight economic situation

According to IFC (2021), with a few exceptions, the outbreak of COVID-19 is projected to slow down investments in the water sector in Nigeria. It also increased the importance of operational reliability due to the cost of disruption. These operational needs derive from shifts in demand patterns, supply disruptions, and the various emergency measures employed by governments to cope with the pandemic. The COVID-19 shock received by poor and vulnerable households was accompanied by major urban water and sanitation services deficits, all pointing towards a potentially overwhelming burden to contain the virus. Low access, reliability, and the quality of water, sanitation, and hygiene (WASH) present risks in developing countries including Nigeria.

5.0 IMPACTS OF COVID-19 ON EXTRACTIVE INDUSTRIES AND GOVERNANCE OF THE SECTOR.

The closure of factories in China and major lockdown states resulted in a fall in demand for most minerals and metals except gold. On the supply side, most mining and drilling sites were either shut down or operated at minimum capacity in line with COVID-19 measures hence output was reduced even where demand did not decline like in the market for gold. This is because gold is not just a refuge commodity in the context of COVID-19 infections, it is an irreplaceable ingredient in the Lateral Flow Assay (LFA) for the COVID-19 Rapid Antibody Test used to detect a colour change in the blood and it gives reliable result within minutes in any environment (Chinery, Sayne and Gillies, 2020). This additional source of demand for gold, made its price increase from about \$1.46/oz to \$1.700/oz while the prices of oil and other minerals fell. The increase in the price of gold, however, would have no real effect on government finances in Nigeria as the solid mineral sector was never a significant

contributor to either revenue or employment generation in Nigeria. In 2018, solid minerals generally added only N69.5 billion to government revenue mainly from taxes, fines, royalties, license applications, fees and penalties. Most of these were mainly from two solid minerals namely, Limestone (54.85% and Granite (23.88%). However, the contribution of gold concentrate is infinitesimally estimated at 0.01 tons (NEITI, 2018). This is because the sector is run by small-scale and artisanal miners due to the following challenges; funding gap, the inadequacy of efficient power and transportation infrastructure, insecurity, conflicting legislations, limited geoscience data and information. Illegal mining, environmental challenges and exportation of unrefined minerals are also major problems confronting the solid mineral sector in Nigeria. For example, according to Lawal (2021) a coalition of youth organizations in Osun state, marched against some Chinese miners and their workers in March 2021, forcing the site to close down, on allegations of unbearable land degradation and non-extension of community development services to the mining communities. The gold mining areas in the northern (Zamfara and Niger) states have recorded a high level of banditry activities related to illicit gold mining activities. Fig.2 illustrates the level of environmental degradation experienced in a typical gold mining site in Nigeria. In spite of the insignificant contribution of gold to the overall revenue from solid minerals, it remains a valuable product because there is often an increased demand especially by investors when economies are unstable, which results in the rise in the price of gold. This does not only exhibit the informal nature of mining activities but also the difficulty in harnessing the revenue from the gold product itself.

To address these problems, governments at both state and federal levels are making efforts to reposition the solid mineral sector. The Federal Ministry of Mines and Solid Minerals Development (MMSMD), embarked on some structural reforms in line with the mineral sector road map of 2016. The first of these reforms is the implementation of the Artisanal and Small-Scale Mining and Remote Sensing Monitoring System which aims to regulate and support the activities of artisanal miners and ensure the provision of tools required for mining and thereby ensure the safety of the miners and the environment. Another measure is the Automation of Mining Cadastral System meant to remove bureaucracy in the acquisition, and renewal of mining titles and licenses so that major mining companies would be attracted to the sector. Also, alternative ways of financing the funding gap in the solid mineral sector through joint venture partnership between government and the private sector as was the case in the oil sector and the anchor borrowers scheme used in the agricultural sector are being pursued (Adeniji and Afuye 2020). For example, states are collaborating with the private sector to develop commercial mining of mineral deposits in the states. In Osun state, for example, the government is collaborating with the private sector to move gold mining operations from the alluvia deposit level where artisanal miners operate as seen in Fig.2, to deep mines to be operated by a major company.

In the case of the oil and gas sector, the government is investing in options to reduce the cost of operations and increase productivity in the petroleum sector. Also, more market reflective pricing of petroleum products is being pursued to stimulate local investment while the government is rolling back operations at its underperforming refineries. However, the non-passage of the Petroleum Industries Bill (PIB) by the national assembly, the current low price combined with a planned increase in royalty rate will likely push back investment decisions of the International Oil Companies (IOCs) on the backlog of deep-water projects. According to Nafi, Chinery, Sayne and Gillies, (2020) a few IOCs have already announced plans to sell their Nigerian assets and this may increase illicit funds flow (IFF).

5.1 Impact on the Environment Especially in Mining and Petroleum host Communities

As efforts to foster economic growth and diversification of the Nigerian economy engender greater focus on the Solid Minerals sector, the need to ensure that all conventions guiding the exploitation of the natural resources are observed is paramount. Artisanal mining is an activity that employs many people in rural areas because the barriers to entry are minimal, given the low technology, capital and limited specialized skills needed. Miners can earn higher incomes in mining than through other traditional activities.

Figure 2: Artisanal Gold Mining in Osun State.



Source: (<https://amiloadednews.com/2021/03/alleged-land-degradation.osun.youth-shutdown>)

However, artisanal mining is an activity associated with many negative social and environmental impacts as shown in Fig.2. Miners are exposed to chemical contaminants and unsanitary conditions. Women and children are generally the most affected by these hazards. Artisanal mining is associated with a number of environmental impacts, which are deforestation and land degradation, open pits (see Fig. 2) which pose animal traps and health hazards, and mercury pollution, dust and noise pollution. A large proportion of artisanal miners are unaware of the laws governing mining activities and the environment.

The COVID-19 pandemic has led to the shutting down of a number of mining operations, both by government decree and by corporate policy. This phenomenon has pushed considerable numbers into the informal, already crowded artisanal and small-scale mining (ASM) sector. With governments increasingly unable to enforce what few regulations may exist for these remote operations, the high environmental and social costs could include deforestation, water pollution, and the increased use of cheap mercury in processing; elevated health and safety risks relating to the influx of untrained miners; and the expanded use of child labour as schools close and incomes are reduced. Women will bear many of the impacts. Should these ASM operations spring up in close proximity to large-scale mines, tensions and conflicts could also emerge between miners and companies.

As governments retreat from more rural areas and direct their resources and attention at the fight against COVID-19, they could leave a vacuum easily filled by non-state armed groups or criminal organizations seeking to exploit the situation for revenues or territorial control.

Also, a major problem of crude oil production in Nigeria is environmental degradation due mainly to the flaring of associated gas during oil exploration and petroleum spillage that devastate aquatic life in the oil-producing areas. This is of great concern especially to people living in the oil-bearing communities and very little progress can be seen. Billions of standard cubic feet (SCF) of gas are still flared quarterly in Nigeria, which puts the country's air quality at a risk. According to Otu and Oloidi (2018), the country's level of particulate matter is very high at a 10 percent ratio. This poses high adverse environmental and health implications such as climate change, acid rain, agricultural loss, health challenges, physiological effects and air pollution which adversely affect the income level, health status and social wellbeing of the people living in the oil-producing area in particular and the country at large.

5.2 Effect of COVID-19 on Illicit Fund Flow.

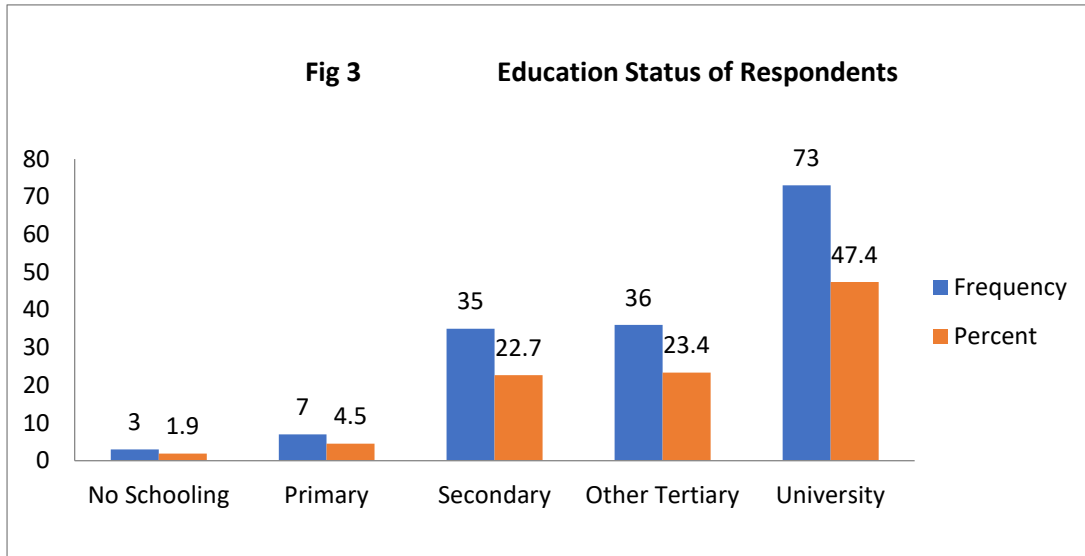
Illicit fund flows involve cross-border flow of resources through illegitimate means or channels usually by way of tax evasion, over or under-invoicing of commercial transactions, illegal markets and other corrupt practices or theft. According to the report of the United Nations Conference on Trade and Development (UNCTAD) in United Nations (2020), as much as 50 percent of illicit fund outflow from Africa is generated through trade mis invoicing due to the poor regulatory framework in the developing countries. This could be in the form of export under-invoicing in which case the market value of resources exported is in excess of what is paid for them or imports over-invoicing as a result of which payment made by the developing country for imports is in excess of the true value of transactions. In the case of Nigeria, (UNCTAD 2016) reported that between 1996 and 2014, illicit fund outflow arising from oil export under-invoicing is estimated at \$44 billion while import mis-invoicing is estimated at \$45 billion. On average this is \$2.4 billion and \$2.5 billion per annum for oil export and imports mis-invoicing respectively. Also, the United Nations (2020), estimated the annual loss of total tax revenue to global corporate taxation by developing countries as six (6) to 13 percent for the same reasons. Since profit maximization is the primary motivation for engaging in illicit fund transfer, more is preferred to less hence the perpetrators of illicit financial transfers may seize any opportunity available to increase it. Given that all the senior officers of the regulatory agencies interviewed agreed that COVID-19 affected the performance of their role negatively (Fig 22) the regulatory environment created by the movement restriction and work at home policy may have been compromised creating an opportunity for increased illicit fund flow. Nigeria may therefore have lost more resources through under-invoicing of oil and gas export and also over-invoicing of imports during the period. The above notwithstanding, the allowable fiscal deductions by NNPC for federally funded projects/expenditures for 2020, which is a possible avenue for over-invoicing commercial transactions, was reduced by N649bn to create additional fiscal space for the federal government in 2020. This could have limited the amount expropriated from such transactions. In the case of product marketing however, the Osun state government is re-organizing marketing of gold by establishing buying centres where artisanal miners can also take their raw gold for refining at Osu in Atakumasa LGA and Gbongan in Irewole LGA just as its counterpart in Zamfara state has done.

6.0 PRESENTATION AND DISCUSSION OF THE RESULT OF THE SURVEY

6.1 Cross-Cutting Issues

a) Background information on Respondents.

Figure 3: Education Level of Respondents



Most of the respondents in the survey were graduates of university or other tertiary institutions as they constituted 71 percent. Only 22.7 percent had secondary education while the rest had primary education or had not gone to school before as shown in Fig.3 Also, 76.3 percent are married while

Figure 4: Marital Status of Respondents

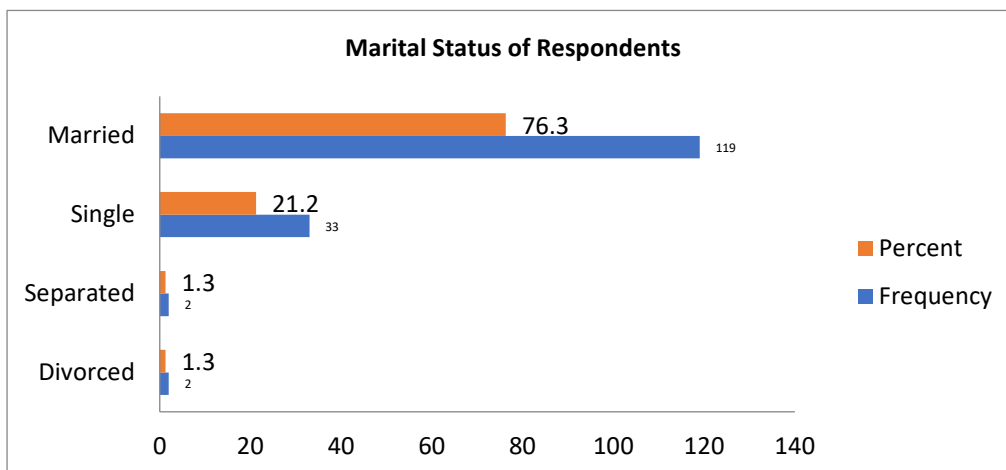
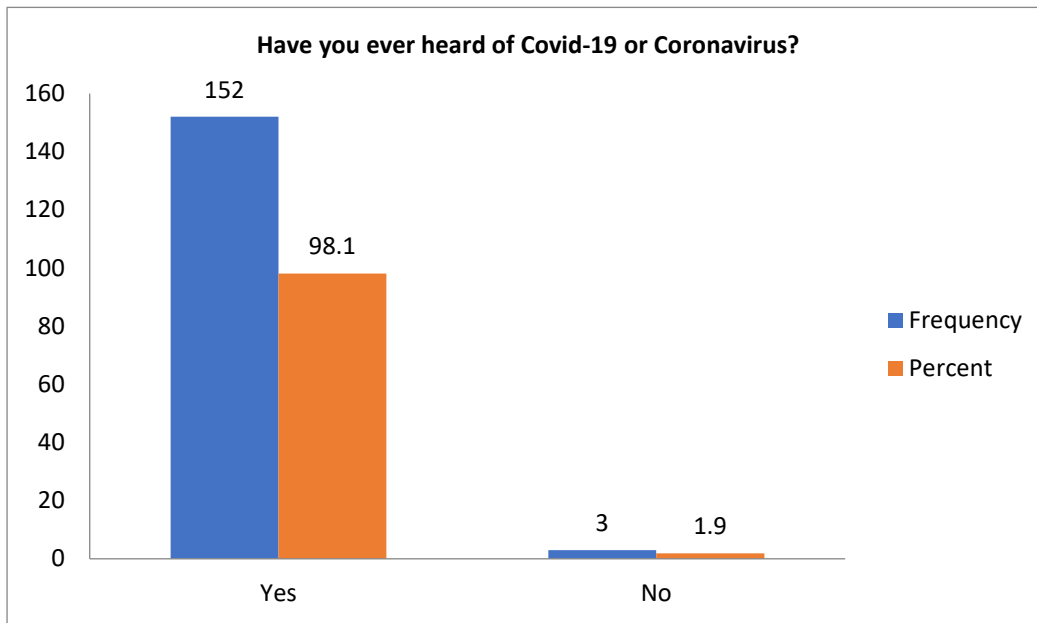
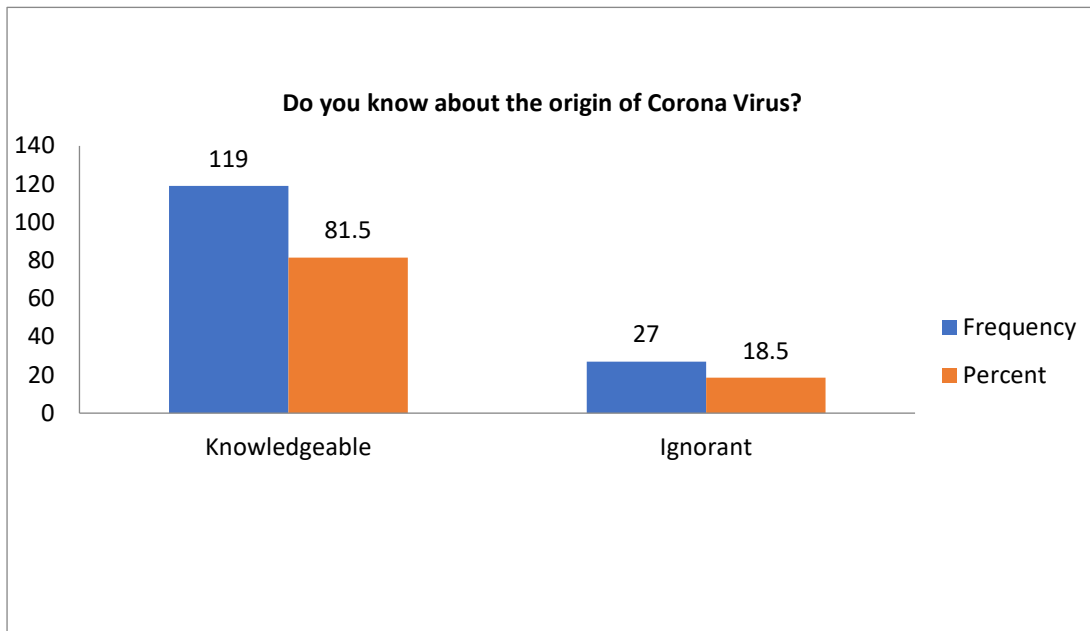


Figure 5: Knowledge of COVID 19



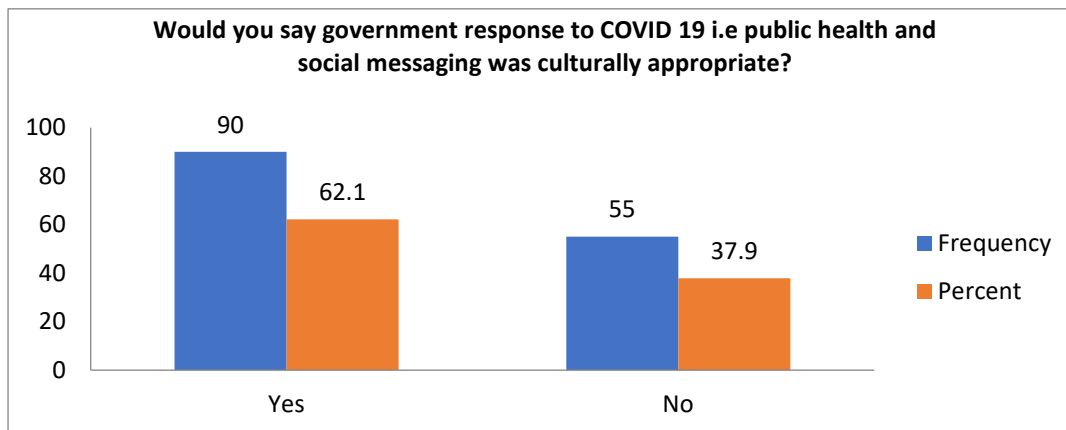
This shows that the respondents were enlightened and responsible enough to give valid and reliable information on the questions raised. Moreover, as we can see in Figs 5 and 6, 152 or 98 percent of the respondents had heard about COVID-19 and were knowledgeable of its origin in the sea food market of Wuhan China.

Figure 6: Knowledge of COVID-19



6.2 Opinion on Public Health and Social Messaging in Response to COVID-19.

Figure 7: Appropriateness of Public Health and Social Messaging



Figs 7,8 and 9, show that 62 percent, 79 percent and 56 percent of the respondent respectively were of the opinion that governments public health and social messaging (PHSM) to provide public awareness, debunk fake news, emphasise the use of face masks, hand sanitizers, regular hand washing and social distancing were culturally appropriate, informative and adequate. Only 38 percent, 20.5 percent and 44 percent respectively, disagreed. However, 51 percent of them said the PHSM was not timely as shown in Fig 10.

Figure 8: How Informative is the Public Health and Social Messaging

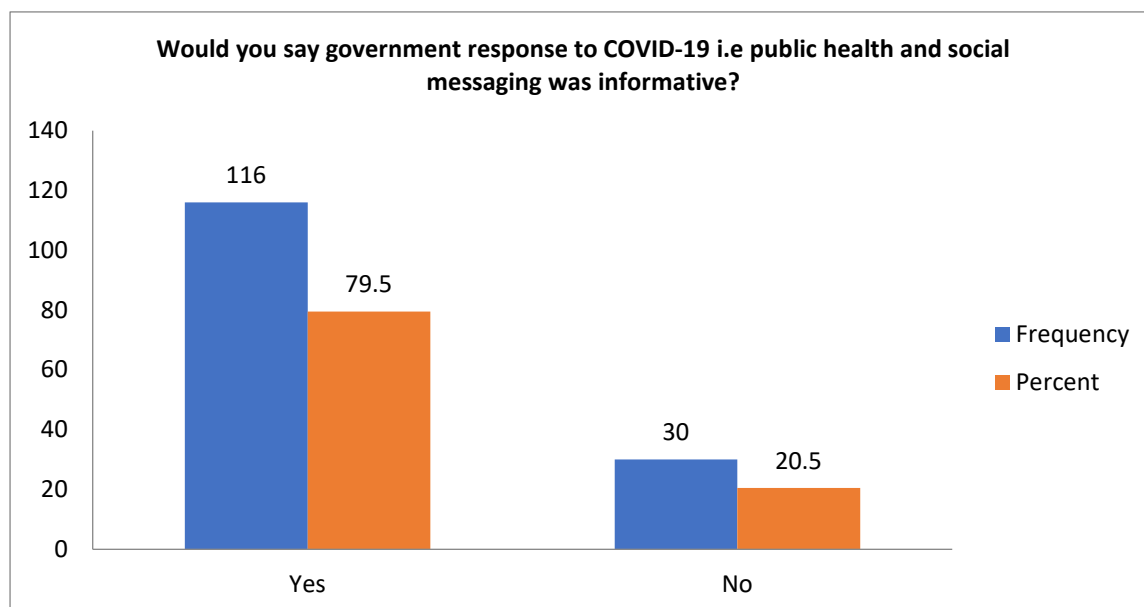


Figure 9: How Informative is the Public Health and Social Messaging

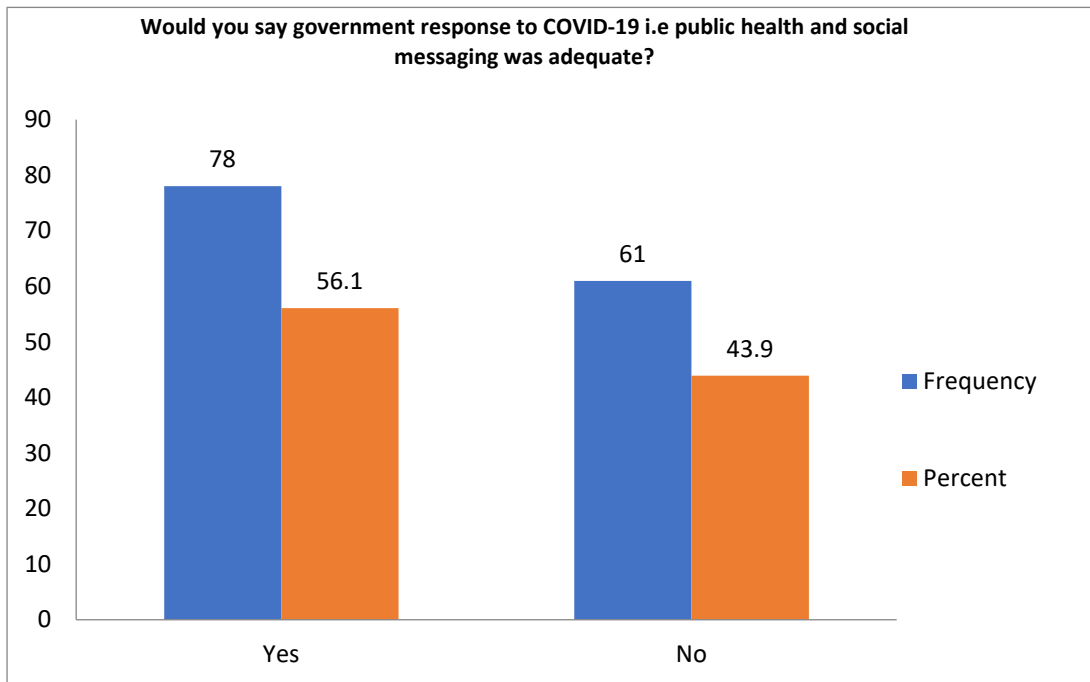


Figure 10: Timeliness of the Public Health and Social Messaging

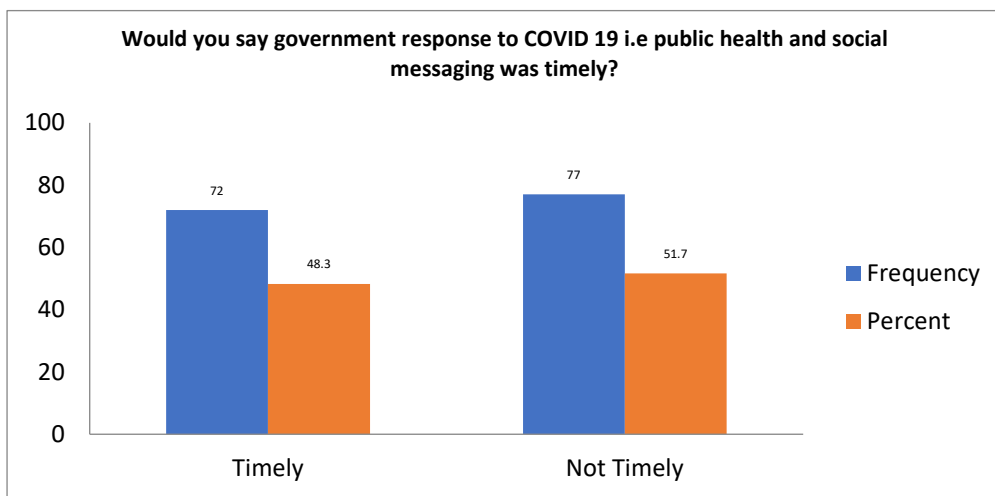
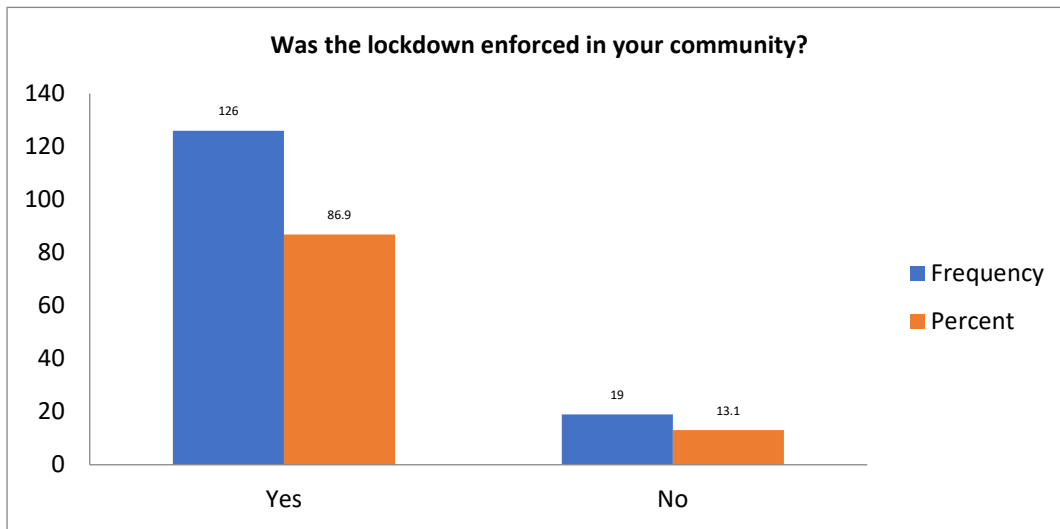


Figure 11: Enforcement of Lockdown in the Community



When asked whether the lockdown measure was enforced in the mining communities, 86.9 percent responded that it was. Only 13 percent said it was not (Fig. 11).

6.2.1 Community Response to the PHSM.

According to Fig 12, community response to public health and social messaging on COVID-19 protocols and the lockdown measure was adequate. 101 out of 149 or 67.8 percent of the respondents to the question claimed the communities responded adequately. The reactions were slow at the beginning but after the death of prominent Nigerians, many residents took the information more seriously and the response level improved. However, only 58 percent wore a face mask regularly, 30 percent did not wear it regularly and 11.5 percent did not wear a face mask at all. Also, 64.5 percent practiced social distancing while 35.4 percent did not (Fig13 and 14).

Figure 12: Community Response

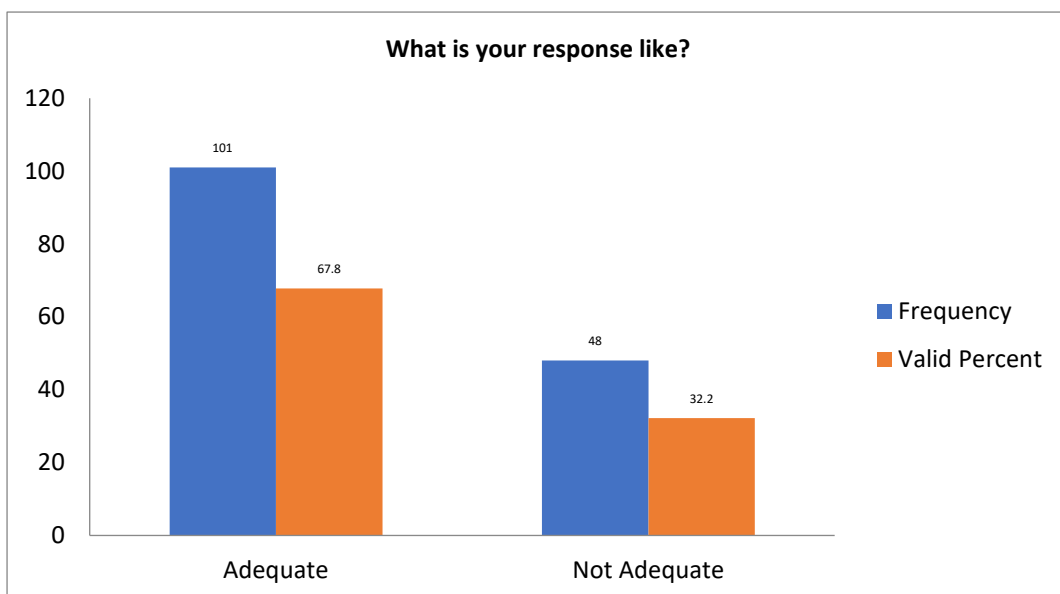


Figure 13: Regularity of Face Mask Wearing

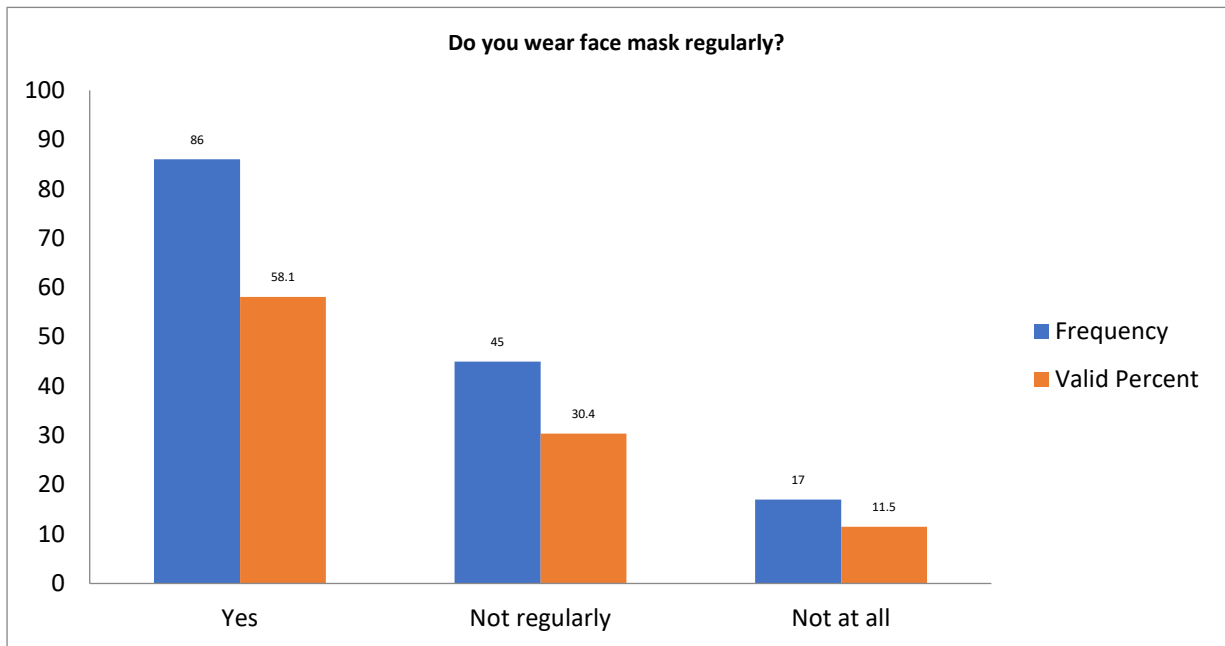
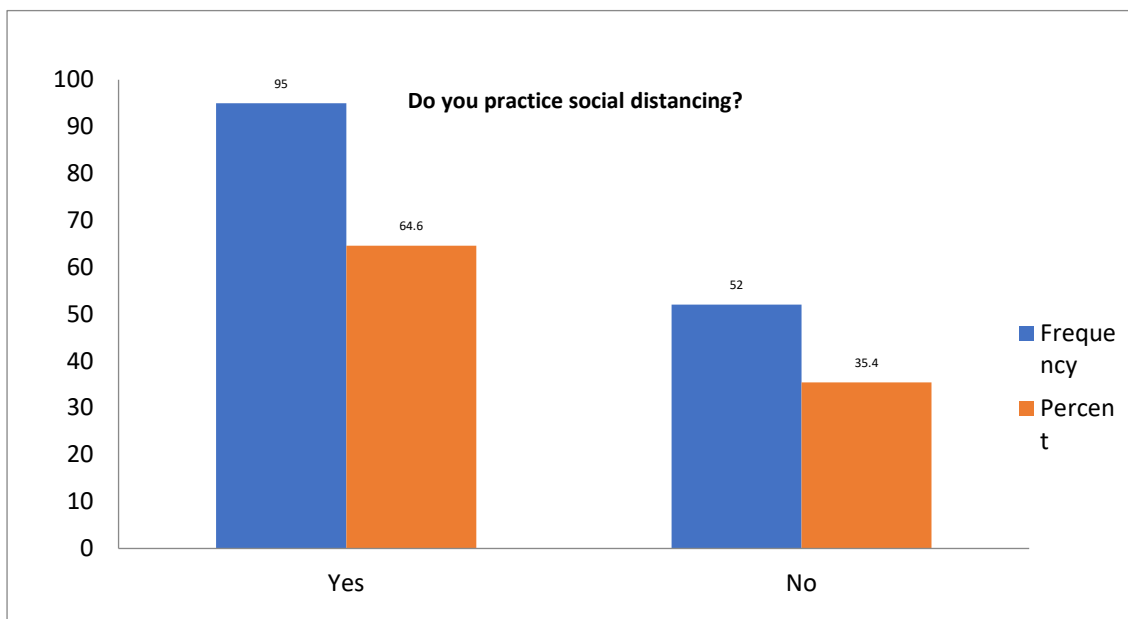


Figure 14: Practice of Social Distancing



6.3 Attitude to Vaccine and Possibility of a Second Lockdown

Most of the respondents would not take the vaccine if their current attitude does not change and would not support a second lockdown. Out of 134 respondents to the question, “would you take COVID-19 vaccine 82 (61.2 percent) said no as shown in Fig.15. Fig.16 indicates that 52.8 percent would prefer health workers to take their jabs first. 26 percent would prefer politicians to take first 1.3 percent wanted the elderly to take first. Others prioritise school children (6.3 percent),

government workers (2.8 percent) and the unemployed (0.7 percent). 95.6 percent of the respondents cannot endure another lockdown in spite of the reality of the second wave of COVID-19 infections in Nigeria (See Fig. 17). Rather than imposing another lockdown, respondents suggested that existing COVID-19 protocols like; limiting the number of people that could gather in a place and the duration of such gathering as well as rules on social distancing, constant hand washing and constant use of face masks should be enforced more vigorously.

Figure 15: Attitude to Vaccine

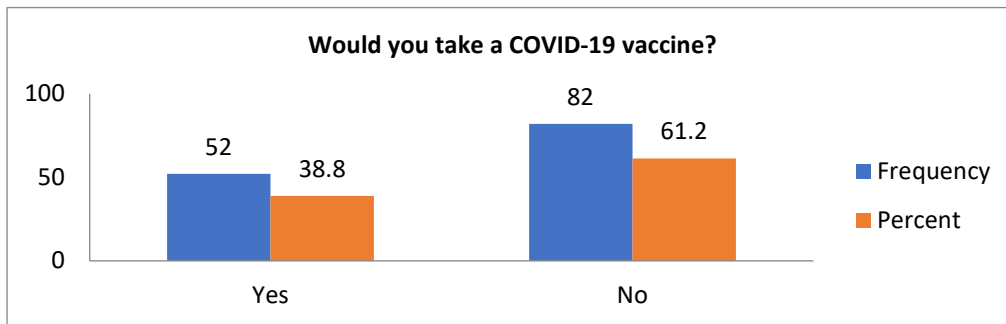


Figure 16: Preferred Priority List for Giving COVID-19 Vaccine.

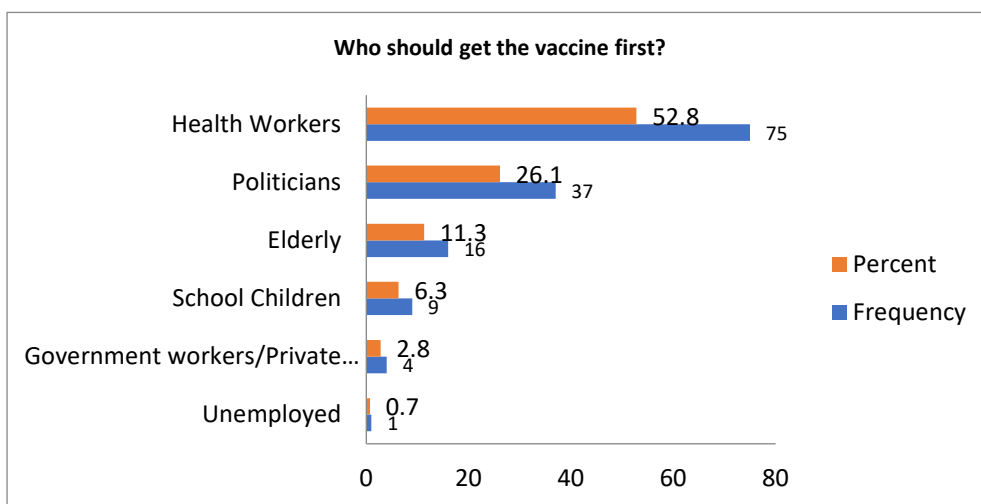
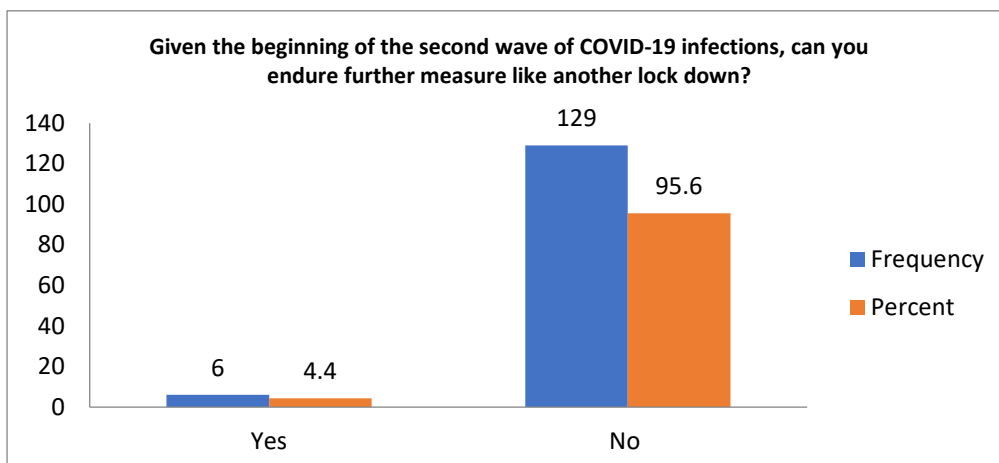


Figure 17: Attitude to the Possibility of a Second Lockdown



6.4 Perception of Traditional and Local Government Officials on Impact of COVID-19 on the Social and Economic Life in the Mining Communities.

The basic information on background characteristics of this stratum of the community like education, marital status, knowledge of the pandemic, etc. were similar to those of the other groups. It is worthy to note, however, that the majority are aged between 40 to 59 years while a few mostly youth leaders and traditional leaders are below and above the middle age adult bracket respectively. It is also interesting to note that 22 out of 34 respondents (64.7 percent) are male while 35.7 percent are female as this complies with the affirmative action for women in decision-making rank (Table 4).

Table 3: Age composition of the Respondents.

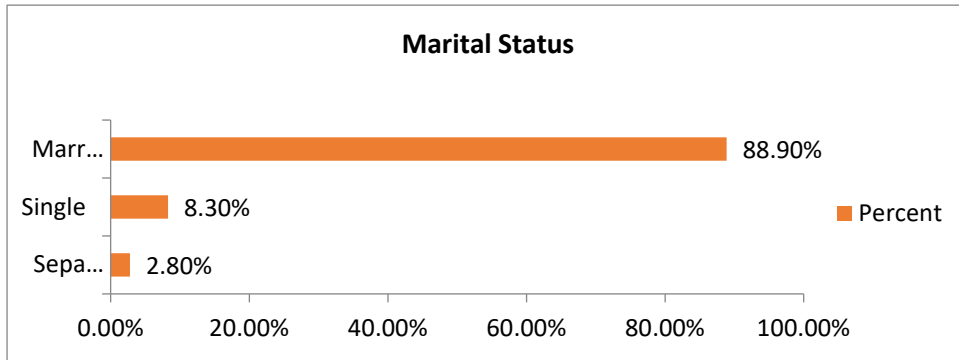
Age of Respondents	Frequency	Percent
Young Adult (18-39)	7	19.4
Middle Age (40-59)	24	66.7
Elderly (60 and Above)	5	13.9
Total	36	100.0

Also, in consonance with the respect accorded the marriage institution in African tradition whereby responsible adults are expected to be married, 89 percent of the leaders are married (See Fig. 18). Only 8.3 percent who may be youth leaders were single.

Table 4: Gender of Respondents

Gender	Frequency	Percent
Male	22	64.7
Female	12	35.3
Total	34	100.0

Figure 18: Marital Status of Respondents



6.5 Perception of Traditional and Government Officials on Impact of COVID-19 on the Economic and Social Life of the People.

The traditional and government officials selected are unequivocal about the negative effect of COVID-19 on economic life of the community as 90 percent reported that the impact of COVID-19 on production activities was negative. In Table 5, it could be seen that 90 percent reported that COVID-19 affected production negatively, 72.7 percent stated that it had a negative effect on price while 63 percent said it affected income adversely. However, 78 percent said the effect of COVID-19 on employment is neutral as only 18 percent said the impact on employment is negative. The seeming inconsistency in the impact on production, employment, income and prices is because the impact on oil and gas and that of gold were different due to differences in the ways mining activities were organised for the two commodities and the opposing direction of the movement of the prices of the two commodities.

Table 5: COVID-19 Impact on Production, Employment, Price Minerals and Income

	Production		Employment		Price of oil /minerals		Income	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Positive	1	3.2	1	3.7	4	12.1	1	3.7
Neutral	2	6.5	21	77.8	5	15.2	9	33.3
Negative	28	90.3	5	18.5	24	72.7	17	63.0
Total	31	100.0	27	100.0	33	100.0	27	100.0

Production activities reduced generally in both oil-producing and gold mining communities as the companies had to abide by COVID-19 protocols but most of the oil company workers remained in employment hence the oil mining communities did not experience massive staff layoffs. Only daily income earners like transporters, food vendors and other service providers who had to stay at home or who suffered low patronage, since fewer workers presented at work, experienced unemployment

or underemployment. In the gold mining communities, however, casual workers and artisanal miners who were shut out of the gold mines due to lockdown rules and youth activism due to “unbearable environmental degradation” and the poor community relations of the Chinese miners, suffered both loss of jobs and loss of income. These probably constituted the 18.5 percent of the respondents that reported negative employment effects. Since women are more involved in food vending and other commercial activities in mining sites, they may be more affected by the negative impact of COVID-19 on employment in the mining communities.

However, the negative effect of COVID-19 was felt more on income than employment because even those who did not suffer loss of employment but did not go out to work, lost some personal emoluments like overtime allowances in addition to the daily paid workers, and those who suffered loss of income because the mining sites were partially closed. The majority of the responses indicated a negative impact on price since 66 percent of the respondents were from oil-producing communities and the price of crude oil reduced by over 50 percent while the price of gold increased. Also, the negative impact observed in production is obvious from the literature and the response from NNPC which indicated that production dropped from 1.94 million barrels per day (mbpd) before COVID to 1.78 mbpd.

The respondents also reported the negative impact of COVID-19 on local government revenue and education of the children. As we can see in Table 6, 78 percent of our respondents said the revenue of the local governments was negatively affected. Apart from reduction in revenue from the Distributable Account, the local government also lost revenue that should have accrued to them through rents and rates from economic activities in the market, stalls and the mines etc. In the case of education, the closure of all schools had a greater impact on rural communities as most households did not have access to the internet and other media used in the cities to deliver education to children. Thus 97 percent of respondents reported that COVID-19 had a negative impact on education of the children.

Table 6: Impact on Local Government Revenue and Education of Children

	LGA Revenue		Education of Children	
	Frequency	Percent	Frequency	Percent
Positive	6	22.2	1	2.9
Negative	21	77.8	33	97.1
Total	27	100.0	34	100.0

Although 57.6 respondents said they had health care facilities in their communities (Table 7), the health facilities were probably not operating at full capacity or the people hesitated to attend the facilities due to fear of contracting the virus. Hence 80.8 percent reported that health care in the communities was negatively affected (Table 8).

Table 7: Availability of Health Facilities

Covid19 Effect on Community Health	Frequency	Percent
Yes	19	57.6
No	14	42.4
Total	33	100.0

Also, social activities and social welfare were all negatively affected as people could not gather to celebrate marriages, and perform burials, traditional ceremonies and festivals. Hence 96.6 percent and 93,5 percent of the respondents reported negative effects on social activities and social welfare respectively (Table 8).

Table 8: Impact on Health Care, Social Activities, Social Welfare and Assistance to Community.

	Social Activities		Health care		Social Welfare	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Positive	0	0	1	3.8	0	0
Neutral	1	3.4	4	15.4	2	6.5
Negative	28	96.6	21	80.8	29	93.5
Total	29	100.0	26	100.0	31	100.0

6.6 Views of Community Leaders on Assistance to the Community

Table 9 reports views of traditional/community leaders and local government officials on the receipt of COVID-19 related assistance by members. 12 of 34 respondents (35.3 percent) were of the view that residents received COVID-19 related assistance while 67.4 percent of the respondents said residents did not receive COVID-19 related assistance.

Table 9: Receipt of Covid19 Related Assistance by Community Members

Receipt of COVID-19 related assistance	Frequency	Percent
Yes	12	35.3
No	22	64.7
Total	34	100.0

Also, from Table 10, it could be seen that only one (1) of 10 respondents (i.e 10 percent) of these agreed that the assistance received was financial while 90 percent of them said it was material assistance they received. The Table also shows that 80.0 percent of them expressed the view that the assistance came from the government, while 20 percent of the respondents were of the view that the support came from non-state actors (Table 10).

However, 73 percent of those who answered the question on adequacy of support reported that the support was inadequate (Table 11). This shows that the palliative support provided was like a drop of water in an ocean of suffering.

Table 10: Nature and Source of Assistance Received

Nature of Assistance	Frequency	Percent	Source of assistance	Frequency	Percent
Financial	1	10.0	Government	8	80.0
Material	9	90.0	NGO	2	20.0
Total	10	100.0	Total	10	100.0

Table 11: Adequacy of Support

Adequacy of support	Frequency	Valid Percent
Yes	2	18.2
Fair	1	9.1
No	8	72.7
Total	11	100.0

6.7 Views of Oil Companies and Gold Mines Workers

The respondents in this category were mostly people of 40 to 59 years old as 55 percent of them were of this age bracket and 40 percent of them were young adults between 18 and 39 years. (Fig 19).

Figure 19: Age Distribution of Respondents

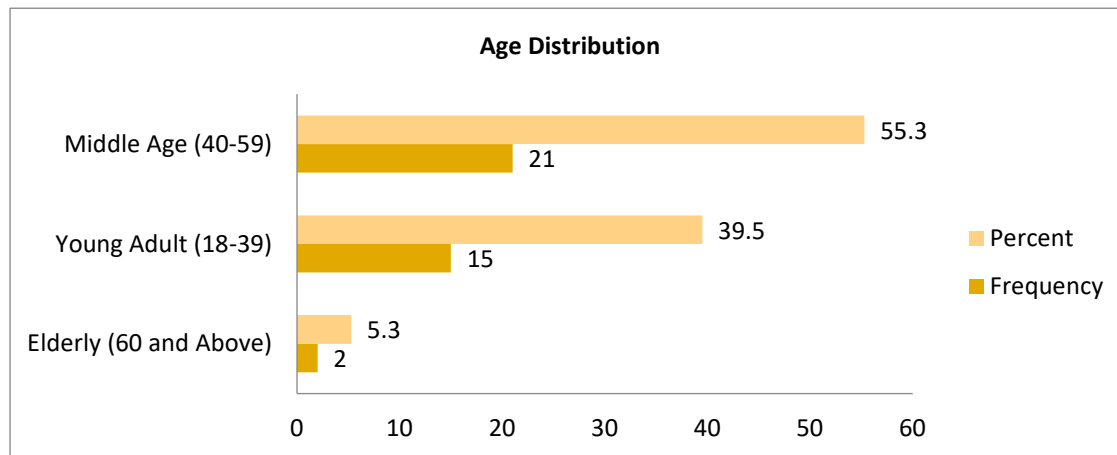


Table 12 shows the responses to questions on residential, employment and union membership status of respondents. The Table reveals that majority of them were migrant workers as 52 percent were tenants. Also, 60 percent of 25 who responded to the question on employment status were full-time workers while 40 percent were casual labourers. Only a few responded to the question on employment status and those who claimed to be members of unions were more than those who claimed to be engaged in full-time employment because artisans and other self-employed service providers do not count themselves as employed but they do have trade unions. The unions they belong to include vulcanizer's, food seller's and motorcyclist's unions.

It is not surprising therefore that while only 15 respondents claimed to be in full-time employment, 22 of the 39 who answered the question on union membership belonged to a union. Hence 56.4 percent of the respondents were members of a union, while 43.6 percent were not members of any union (Table 12).

Table 12: Residential, Employment and Union Membership Status of Respondents

Residential Status	Frequenc y	Percent	Employment Status	Frequenc y	Percent	Membershi p of Union	Frequency	Percent
Tenant	22	52.4	Full Time	15	60.0	Yes	22	56.4
Landlord	20	47.6	Casual Labour	10	40.0	No	17	43.6
Total	42	100.0	Total	25	100.0	Total	39	100.0

The occupational distribution of respondents indicates that 61.9 percent of them were oil workers, 28.6 percent were artisanal miners, and 9.5 percent were in the others category (Fig 20). This is because two-third of the respondents are from the oil mining communities while one-third are from gold mining communities.

Figure 20: Occupation of Respondents

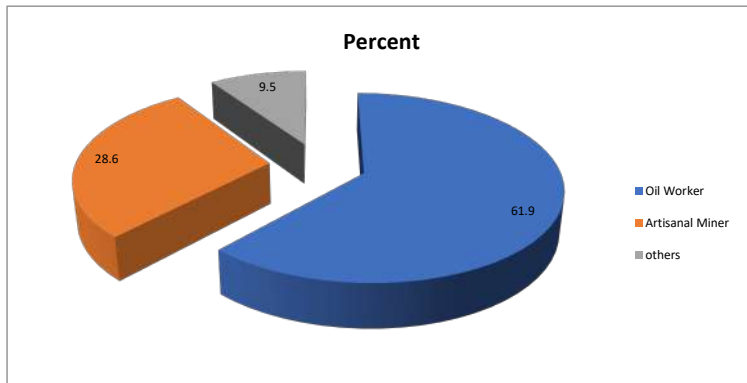


Table 13 combines responses to the questions on the mode of entry and current employment status. 73 percent of the respondents entered their respective businesses by choice while 27 percent got into it by accident.

Table 13: Mode of Entry into Business and Current Employment Status

Entry process	Frequency	Percent	Currently engaged	Frequency	Percent
By choice	24	72.7	Yes	30	78.9
By Accident	9	27.3	No	8	21.1
Total	33	100.0	Total	38	100.0

However, only 78.9 percent of the respondents were engaged as at march 2021 while 21.1 percent of the respondents were not engaged. This means approximately 50 percent of those not in unions were out of employment at the time of the interview.

Table 14 reports that 3.3 percent of the respondents were of the opinion that COVID-19 had a positive impact on company activities, 6.7 percent opined that the impact of COVID-19 on company activities was neutral, but 90 percent stated that COVID-19 had a negative impact on company activities.

Table 14: *Impact on Company Activities?*

Covid19 Impact on Company activities	Frequency	Percent
Positive	1	3.3
Negative	27	90.0
Neutral	2	6.7
Total	30	100.0

According to a respondent from the Nigeria National Petroleum Corporation (NNPC), all companies in the industry were directed to limit the number of workers at the production sites. Consequently, most senior staff worked from home and operational workers were also reduced. This reduced the level of activities, slowed the decision-making process and possibly compromised the regulatory environment.

From Table 15, we see that 15.8 percent of the respondents were of the opinion that COVID-19 had a neutral impact on the work environment, while 84.2 percent were of the view that it had negative impact. Also, 3.7 percent of the respondents were of the opinion that COVID-19 had a positive impact on union activities, 7.4 percent were of the opinion that its impact on union activities was neutral, while 88.9 percent said that COVID-19 had a negative impact on union activities.

Table 15: *Effect of Coronavirus on Work Environment and Union Activities*

Effect on work environment	Frequency	Valid Percent	Covid19 Impact on union activities	Frequency	Percent
Positive	0	0	Positive	1	3.7
Neutral	6	15.8	Neutral	2	7.4
Negative	32	84.2	Negative	24	88.9
Total	38	100.0	Total	27	100.0

This is because the ban on large gatherings prevented unions from holding meetings and other union activities. Hence, they could not gather to fight for their rights or make demands on government, mining companies and their employers.

Table 16: How did You Sustain Yourself and Dependants?

S/N	Responses	Frequency	Percent
1	Daily income	8	27.5
2	Wages	14	48.3
3	Savings	7	24.1
	Total	29	100

On the question of sustenance, 27 percent were still able to go out to earn daily income 48 percent earned salaries while 24 percent fell back on their savings (Table 16).

The age distribution of respondents selected from resident households that had only a partial link with mining activities reflected the general demographic structure of the nation. As Table 17 reveals, 54 percent of the respondents were young adults, 42 percent were middle-aged adults and only about 5 percent were elderly.

6.8 Views of Resident in the Mining Communities.

About 64 percent of the respondents were married and 33 percent were single. As is expected of resource-rich communities, the majority of the residents were migrants hence 64 percent live in rented apartments (Table. 18) and their education status largely reflects the distribution in Fig.3.

Table 17: Age Distribution and Marital of the Respondents.

Age of Respondents	Frequency	Percent	Marital Status	Frequency	Percent
Young Adult (18-39)	36	53.7	Married	46	63.9
Middle Age (40-59)	28	41.8	Divorced	2	2.8
Elderly (60 and above)	3	4.5	Single	24	33.3
Total	67	100.0	Total	72	100.0

Table 18: Residential Status of Respondents

Residential Status	Frequency	Percent
Tenant	45	64.3
Landlord	25	35.7
Total	70	100.0

To evaluate the effectiveness of efforts to curb the spread of COVID-19 and ease the hardship created by the pandemic, members of households living in the mining communities were asked whether there is improvement in their situations. Only 11 respondents or 15 percent responded in affirmation (Table 19). These could be civil servants and other office workers who resumed work after the lockdown measures were suspended.

Table 19: Whether the Situation Improved.

Is effect improving?	Frequency	Percent
Yes	11	15.3
No	31	43.1
Neutral	30	41.7
Total	72	100.0

43 percent of them said the situation had not improved and 41 percent were neutral. This shows majority were still not sure of any improvement since the second wave of infections had commenced and the rate of infections and mortality started rising again. In addition, many businesses in the community including; automobile repairers, tailoring, commercial motorcycle riders, vulcanizers and caterers had not fully recovered at the time of the survey hence the level of activities in the mines were still low.

From Fig. 21, we can see that 27 percent of the 11 respondents who said the situation had improved attributed the improvement to government efforts such as; supply of personal protective equipment in public offices, increase in facilities for testing, provision of isolation centres and treatment facilities for those infected and enlightenment through public health and social messages. Others were enforcement of COVID-19 protocols i.e., wearing of face masks, hand washing, sanitization of the environment and enforcement of social distancing rules. There were also non-medical interventions like provision of palliatives to the less privileged and financial assistance to businesses including tax rebate to employers, cash transfers to artisans, small-scale industries, moratorium on payment of

loans. 45 percent of them, however, attributed the improvement to individual efforts like maintaining social distance, wearing nose masks, educating others to do so, and taking herbal medicine to fortify their immunity against infections. Also, 18 percent attributed the improvements to the activities of non-governmental agencies like the Private Sector Collision against COVID (CA-COVID) which mobilized over \$72 billion to support government efforts through direct provision of facilities to strengthen the healthcare sector's capacity to respond to the crisis and raised public awareness and buy-in for COVID-19 prevention. Furthermore, 9 percent said it was through the efforts of companies that embarked on sensitization of staff members, workers, clients, suppliers and vendors, those who paid their workers, promoted social distancing and other mitigation measures, hosted seminars on COVID-19 and its prevention measures and encourage the use of nose mask, regular washing of hands and provided palliatives to workers and vulnerable households.

Figure 21: Source of Improvement

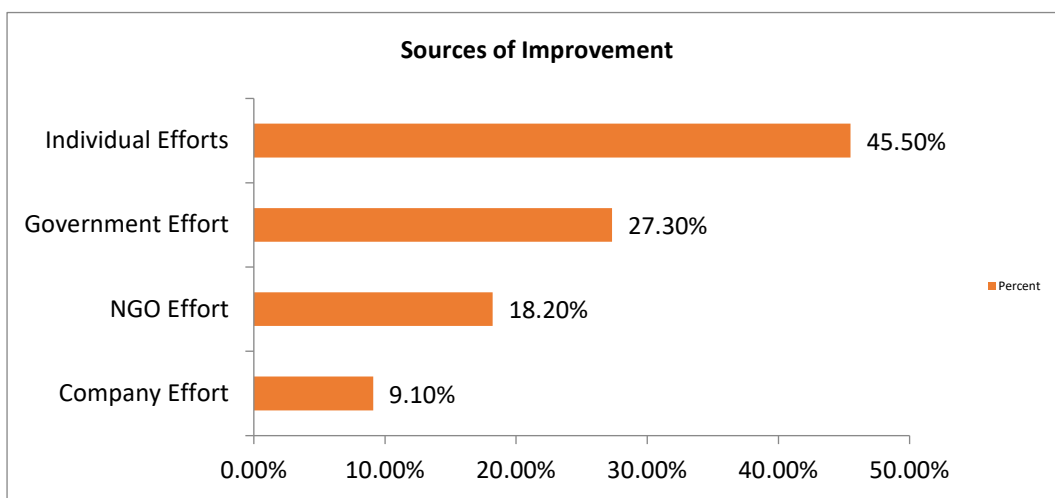
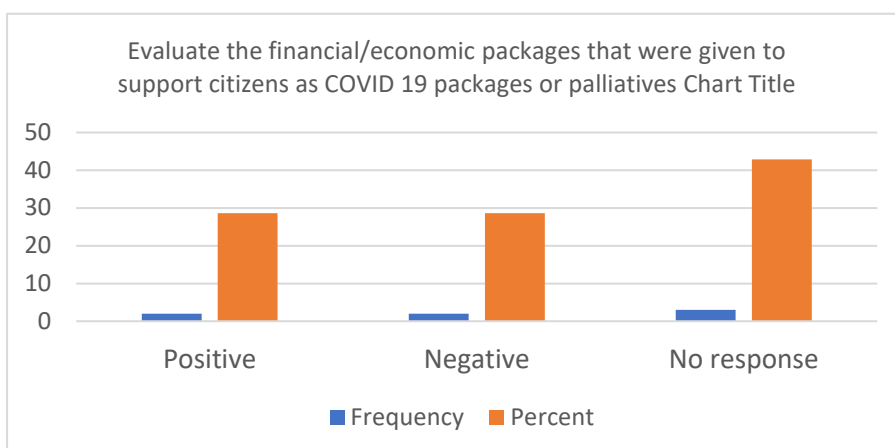


Figure 22: Evaluate the Financial/Economic Packages That Were Given to Support Citizens as COVID-19 packages or Palliatives



According to Fig. 22, there is no clear evidence that financial and economic packages given to support citizens made a significant impact on their economic situation. Some respondents agreed that a substantial number of small-scale enterprises including banks and other financial institutions and

private schools were supported to be able to pay their workers. However, this assistance did not go far and there were counteracting fiscal measures like appropriate pricing policy being pursued in petroleum and electricity sectors compounded the hardship experienced by citizens as the policy has fueled inflation.

6.9 Responses from Regulatory and other Stakeholder Agencies.

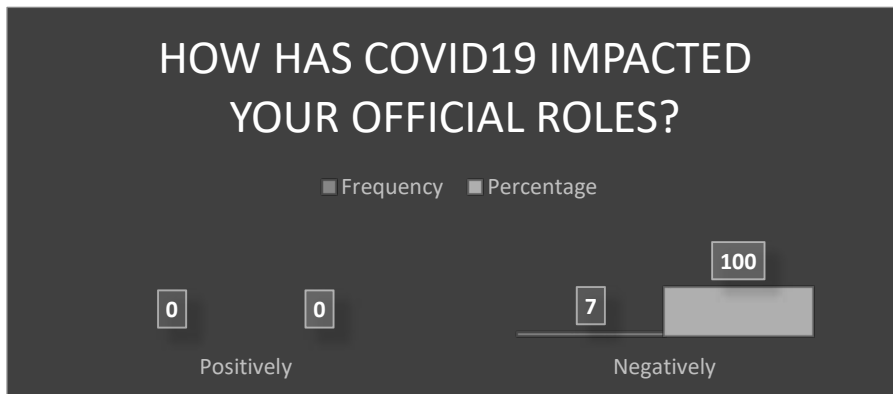
This section captures responses from the regulatory and other stakeholder agencies mentioned above and the interview with the Executive Director of Solid Mineral Development Office of Osun State. The respondents were all high-ranking officers of their respective institutions as revealed by Table 20 and all said that COVID-19 had a negative impact on the performance of their official functions.

All agreed that it affected their official role negatively (Fig 23.) One officer said, “I spend more time at work in the field location, most meetings and drills are now carried out virtually, I go through quarantine and COVID testing before being allowed to go into the field”. Under these conditions, regulatory procedures were most likely to be compromised.

Table 20: What is Your Position in the Organization?

Position	Frequency	Percent
Executive Secretary	2	22.2
Director	1	11.1
Acting Director	1	11.1
Deputy Director	1	11.1
Assistant Director	1	11.1
Assistant Chief Tech officer	1	11.1
Info Tech Analyst	1	11.1
Supervisor	1	11.1
Total	9	100

Figure 23: Impact on Official Role



All the respondents also agreed that COVID-19 affected company operations adversely as the government ordered all firms operating in the sector to limit the number of staff on the sites while some companies stopped operating because their staff stayed at home. Some companies in the sector pressured the government agencies to relax COVID-19 regulations or exempt them. As seen in Fig. 24 and 25, the regulatory agencies NNPC, DPRA, NNRA and MMSD agreed that they were pressured by companies to exempt them or vary PHSM instructions for them. Some also wanted fiscal regimes of contracts and agreements and labour standards to be varied in their favour.

Figure 24: Whether companies put pressure to relax regulations.

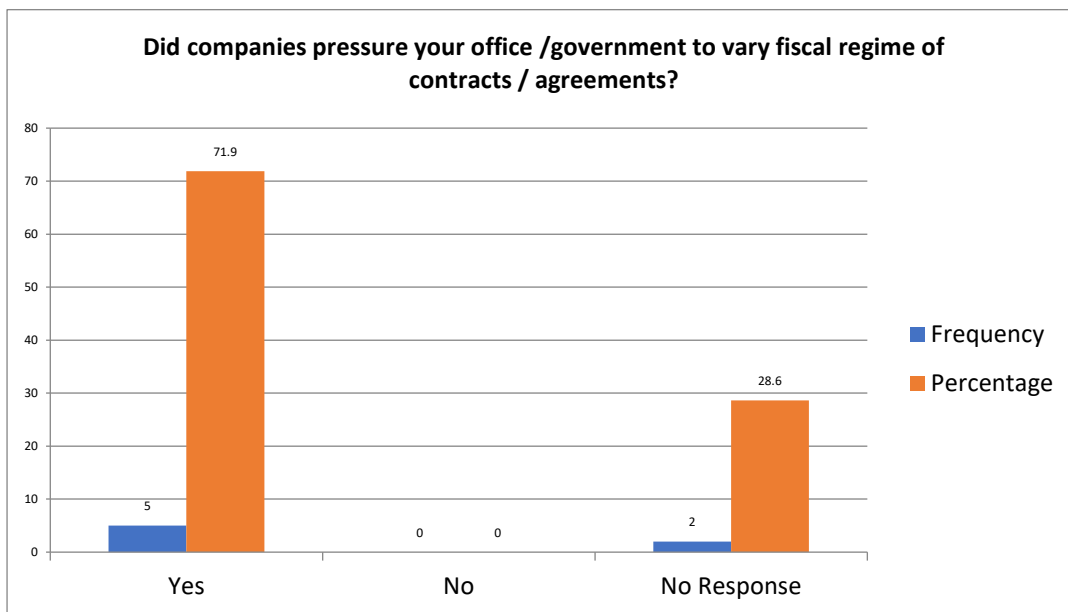


Figure 25: Whether companies put pressure to relax regulations.

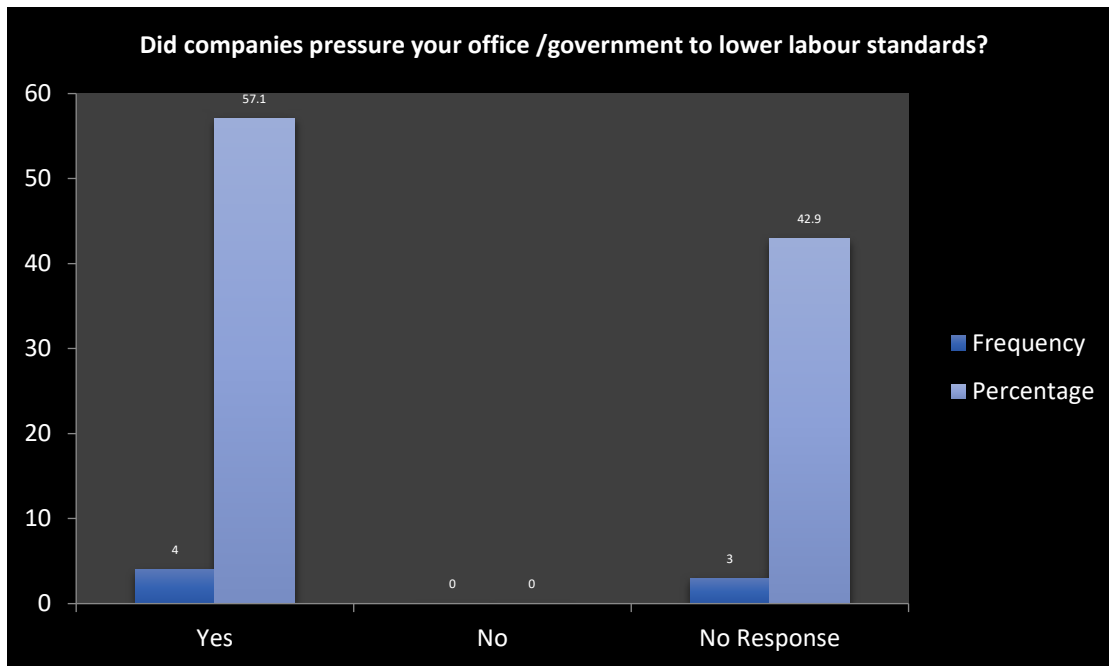
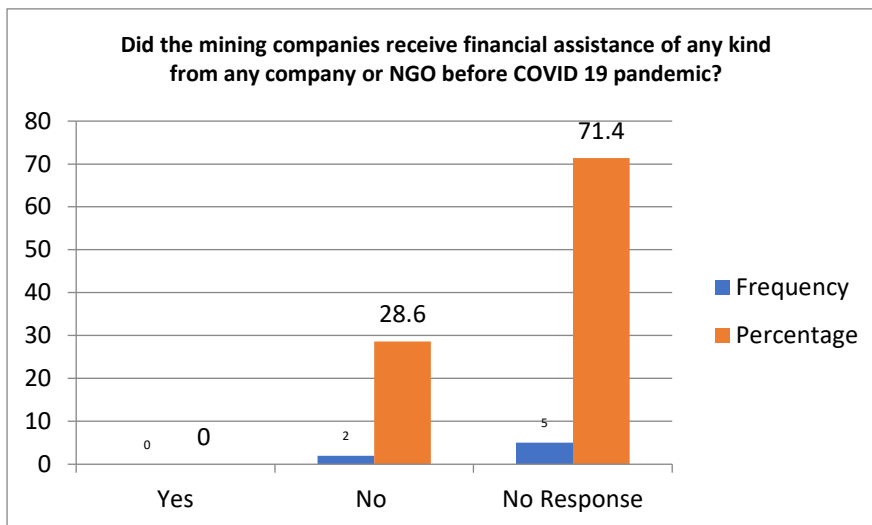
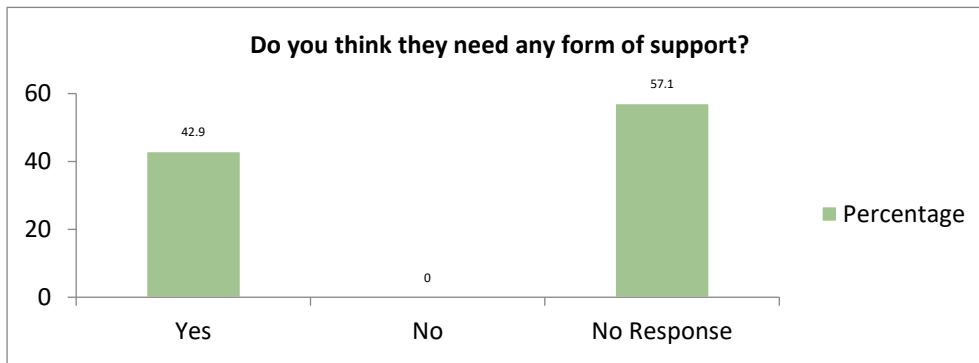


Figure 26: Did Mining Companies Receive Assistance of Any Kind From and Company or NGO?



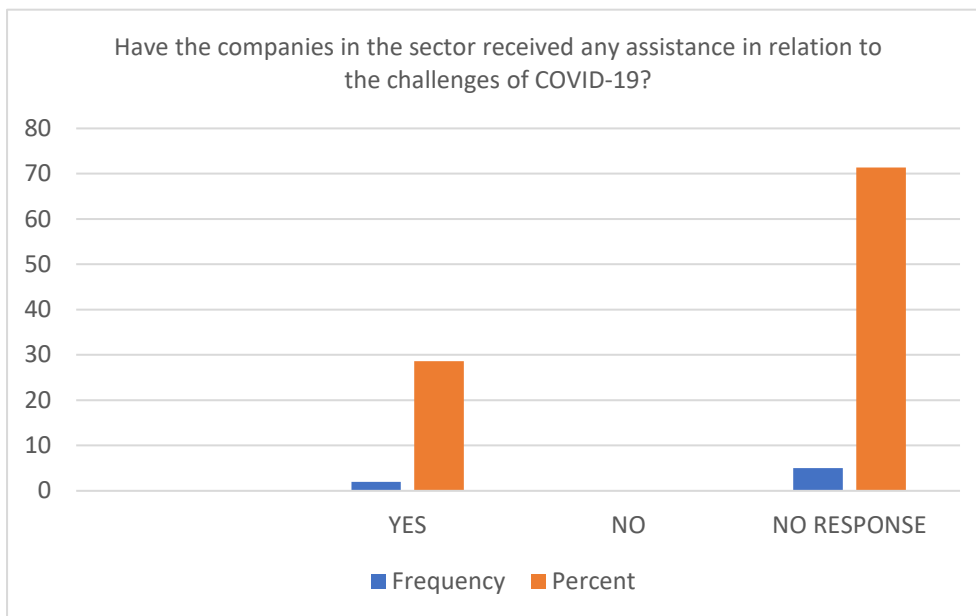
The officers in charge of the solid mineral sector responded to the question of whether mining companies got assistance from any other company or NGO and they both said no (Fig.26). Others did not know hence they did not answer the question.

Figure 27: Do They Need Support?



42 percent of the respondents said they needed support to stay in business and keep their staff in employment.

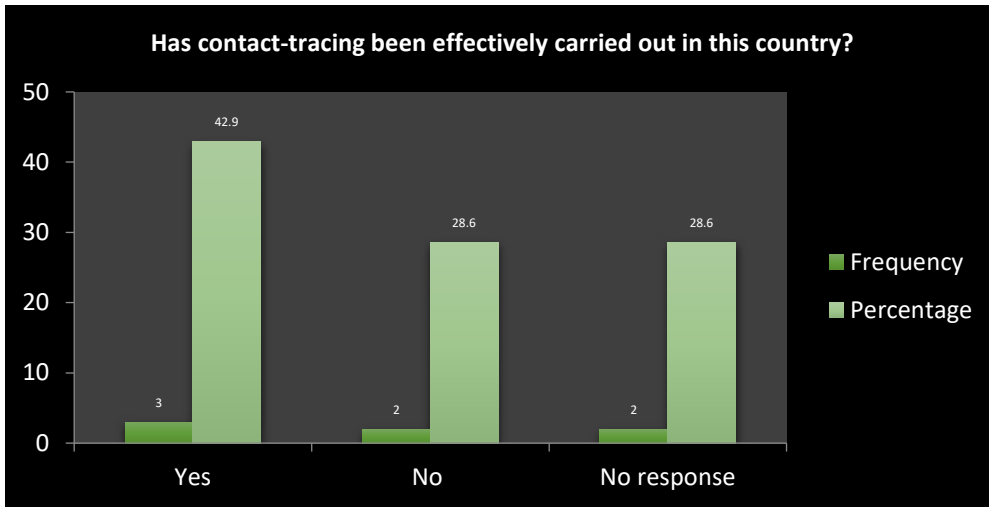
Figure 28: Received any Assistance in Respect of COVID-19?



To assist all companies in the country and their employees, the House of Representatives on 24th March 2020 passed the Bill which sort to protect employees from loss of jobs as a result of COVID-19 by granting income tax rebate on the total actual amount due or paid as pay-as-you-earn (PAYE) tax under the Personal Income Tax, Act, 2004 as amended, to Nigerian companies who retain all their employees from 1st March 2020 to 31st December 2020.

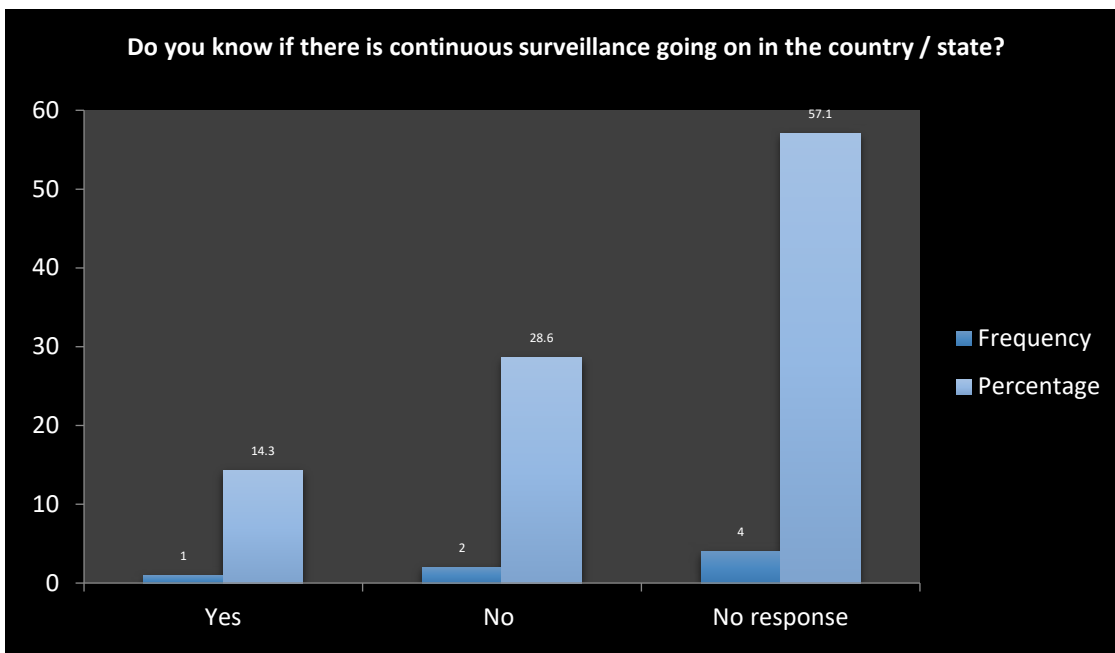
This assistance was accessible to all companies hence the two respondents from the ministry of mines and steel development answered “yes” to the question seeking to know if mining companies got any COVID related assistance and they submitted that the federal government gave the financial assistance to both small and medium scale miners.

Figure 29: Is Contact Tracing Being Effectively Carried Out?



There was no resounding “yes” to the question of effectiveness of contact tracing. Only 43 percent of respondents were confident enough to say “yes” 29 percent said “no” and others who were in the majority did not know whether there was continuous surveillance in the country or not (Fig. 30).

Figure 30: Do You Know if There is Continuous Surveillance Going on in the Country/State?



6.10 Impact on Strategic Policy for Radical Reforms in Response to COVID-19 and the Role of Extractive Industries in National Development

Given the strategic role the extractive industries particularly the petroleum sector has played, as the main source of government revenue and foreign exchange earnings for the three tiers of government

in Nigeria, the coronavirus crisis underscores the risks inherent in Nigeria’s continued dependence on the oil sector. Even before the pandemic and the twin shocks of price and quantity of output, chronic revenue shortfalls were already an issue. Thus, some local oil companies may not survive the economic downturn and some international companies (IOCs) may seek to sell some of their assets as the prospects for new investment are weak since investment decisions on a backlog of deep-water projects that are key to growing production may be pushed back. Consequently, policymakers are taking more proactive steps to reengineer the nation’s overarching development architecture. This has led to the passage of the Petroleum Industries Bill by the two houses of the National Assembly and it is waiting for Presidential assent. The aim is to make the industry more attractive to investors by promoting peace and development in the oil-bearing communities and industrial harmony in the extractive industries sector. Also, according to Fig. 31, both public and private agents in the country are taking advantage of COVID-19 to rethink the operations of the extractive industries sector. 57 percent of respondents answered Yes to the question.

Figure 31: *Is the Country Taking Advantage of COVID-19 to Rethink the Operations of the Extractive Industries Sector*

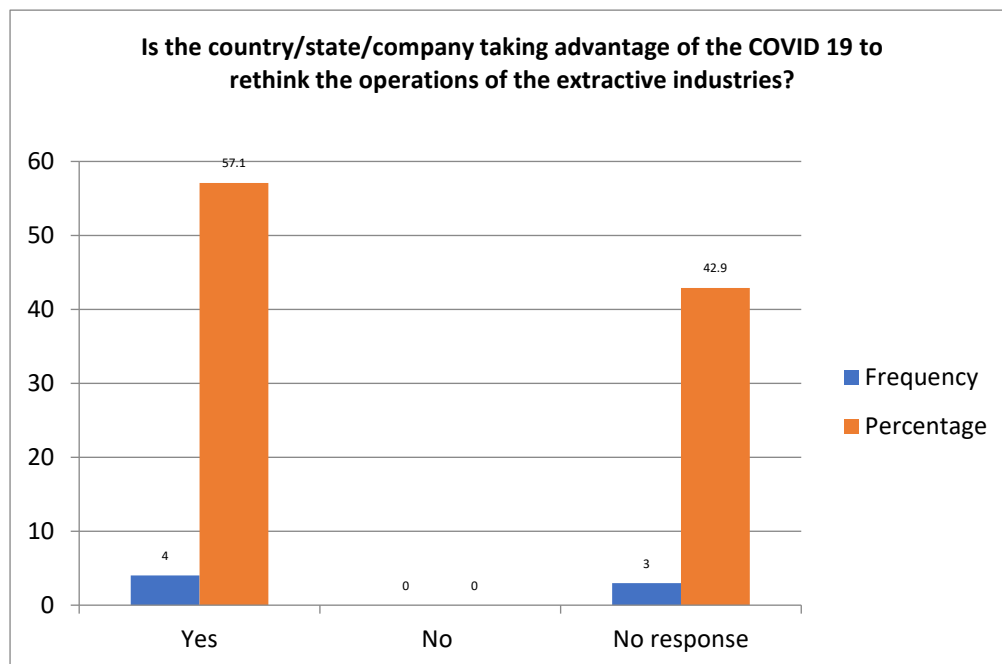


Figure 32: *Is Government Rethinking the Industrial /Production Policies?*

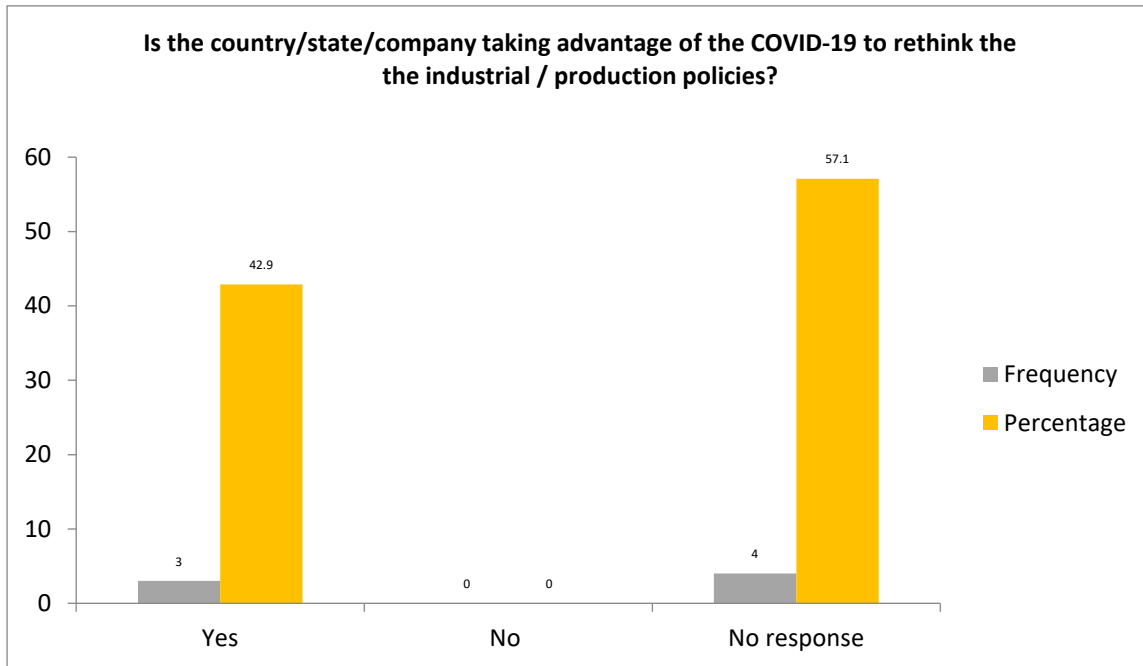
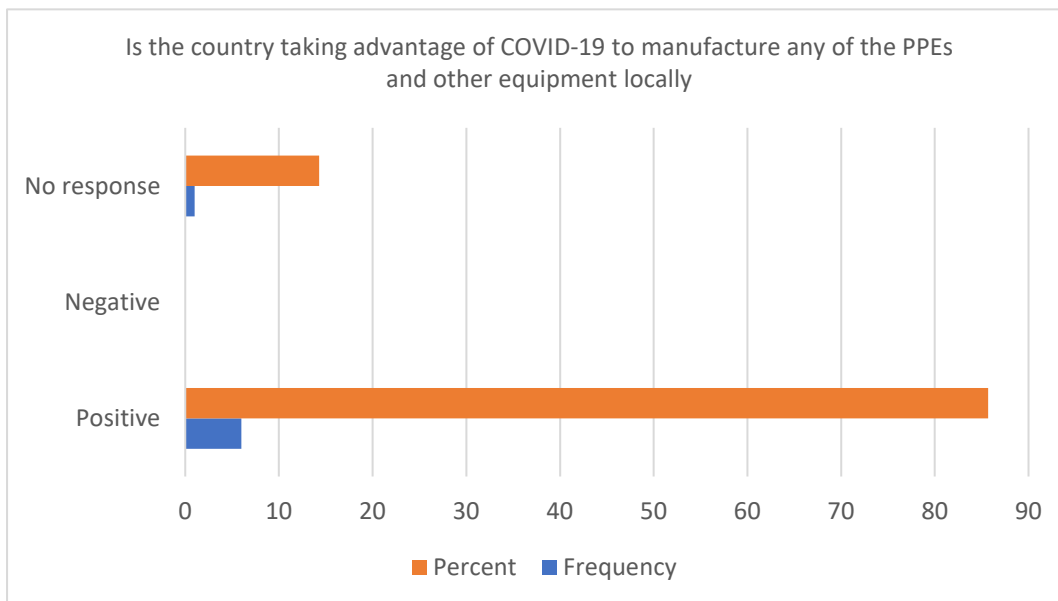
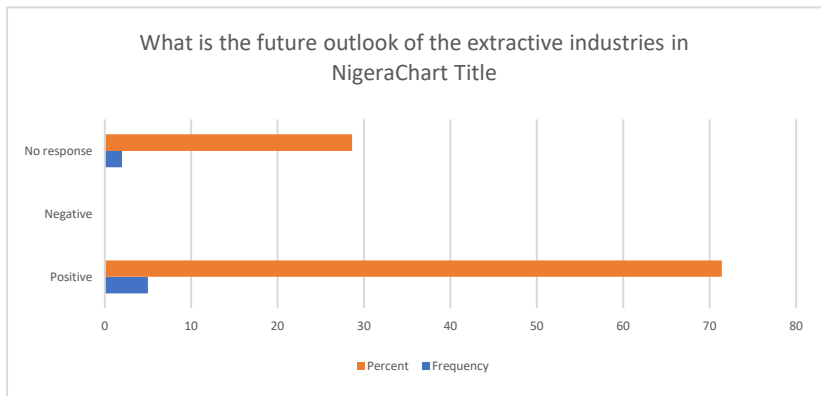


Figure 33: *Is the Country Taking Advantage of COVID-19 to Manufacture any of the PPEs and Other Equipment Locally?*



Consequently, the country now produces alcohol-based hand sanitizers, hospital-grade nose masks, disinfectants, digital mechanical ventilator devices and automated handwashing machines and at least one local remedy was approved by NAFDAC. Also, 86 percent of the respondents agreed that the country has taken advantage of COVID-19 to manufacture some PPEs and other equipment see Fig.33.

Figure 34: What in Your Opinion is the Future Outlook of the Extractive Industries?



According to Fig.34, most of the officials of the regulatory agencies contacted opined that the future outlook of the sector is good. This is because in their opinion, the oil price will rebound after the lockdown and normalcy will return to the industry. However, there will be increased automation in the industry as more technology will be employed to increase profitability in the oil sector and improve mining operations in the solid mineral sector will become a reality. However, more efforts should be made to reduce the emission of waste into the atmosphere through gas flaring and also curb water pollution and other forms of land degradation.

7.0 EFFORTS MADE TO ADDRESS THE SECOND WAVE OF COVID-19 IN NIGERIA

Nigeria, through the Presidential Task Force on COVID-19, officially announced a second wave of coronavirus infections in December 2020. As at that time, more than 76,000 cases of COVID-19 have been diagnosed in Nigeria, while 1,201 people have died from the virus and over 67,000 patients have recovered. According to Usigue (2021) vaccination began on the 2nd of March 2021 when the first batch of 3.9million doses of AstrZenca’s COVID-19 vaccine arrived in the country. The government assured that 80 to 85 million doses to cover 20 percent of the population is guaranteed while the private sector is encouraged to support vaccine procurement. In addition, the government is mobilizing financial and logistic support for local pharmaceutical manufacturers to be able to produce a COVID-19 vaccine in Nigeria within a year. Frontline health workers, members of the political class and the elderly were first prioritized and the plan is to achieve 70 percent coverage of the 200 million population by 2022.

However, by the third week of March, Nigeria’s Centre for Disease Control (NCDC) reported over 162,000 confirmed cases and 2000 deaths giving a death rate of 1.23 percent. The spick in infections rates overwhelmed facilities ear-marked for the isolation and treatment of symptomatic COVID-19 patients in need of medical care were fast running out of capacity. Medically-provided oxygen, essential for managing the growing number of patients who are out of breath, was scarce. For instance, the upsurge in the daily consumption of oxygen in many of its COVID-19 treatment facilities forced the Lagos State government to set up its oxygen plant to meet patients’ demands. The NCDC through the National Emergency Operations Centre (EOC) has continued to lead the national public

health response in Nigeria with oversight of the Presidential Task Force on COVID-19 (PTF-COVID-19). The NCDC is also working closely with all states of the Federation to support their response activities to the pandemic. Several measures have been instituted by the Federal Government of Nigeria through the PTF-COVID-19 together with the Federal Ministry of Health to curtail the second wave of the disease and protect the health of Nigerians. These measures include the enforcement of COVID-19 Protocols, restriction and regulation of non-essential activities; etc. The Nigerian government also commenced the gradual easing of lockdown measures initially instituted at the beginning of the first wave of COVID-19 pandemic. This is to ensure a balance between preserving lives and livelihoods while addressing the socio-economic disruptions caused by the outbreak.

Further to reviewing the response nationwide, and in light of the rising trend in several countries and the high risk of a surge in cases in Africa, the Presidential Steering Committee on COVID-19 (PSC-COVID-19) re-instituted the enforcement of the COVID-19 Health Protection Regulations and announced the phase 4 of the Eased Lockdown, effective from 11th of May 2021. This is to mitigate the risk of a spike in new cases, while the nationwide vaccine rollout continues. Furthermore, the NCDC continues to expand laboratories for the testing of COVID-19 and has commenced the use of GeneXpert across the country to scale-up testing. Through the #TakeResponsibility campaign by the NCDC, Nigerians and residents in the country are urged to take greater individual and collective responsibility in preventing and controlling the spread of COVID-19 in Nigeria.

While authorities at the federal level and in many of the states could be said to have put some preventive protocols and regulations in place to guide the public, it is doubtful if these protocols have been communicated or enforced well enough across the country. Of particular concern is the fact that the use of facemasks by pedestrians, even in heavily populated and busy parks, markets, shops, offices, and bus stops in the streets of the country's large cities, is still very low. Also, despite the government's repeated assurance, many citizens still believe the vaccine has long-term side effects and so refuse to take the jabs as predicted during the survey in March 2020 see Fig. 15 (only 38 percent of respondents said they will take the vaccine when available). As at 28th of July 2021, only 3.94 million doses have been given and 1.4 million people, or 0.7 percent of the population have been fully vaccinated. Consequently, the number of confirmed cases in Nigeria as at 27th of July 2021, had increased to 171,726 out of which 164, 837 were treated and discharge and 2,134 people have died consequently the death rate of COVID-19 is still 1.2 percent as it was before the commencement of COVID-19 vaccination in March 2021. This means that the rise in the rate of infection has not abated and the mortality rate is still the same. This shows that the critical mass for vaccination which is expected to affect the rate of infections and death has not been achieved.

8.0 SUMMARY, POLICY RECOMMENDATIONS AND MITIGATION MEASURES

8.1 Summary

The above analysis shows that the structure of production in Nigeria is gradually shifting away from agriculture and natural resource dominance to service sector dominance with information and communication, professional, scientific and technical services generating about half of the 35 to 36

percent contributed to GDP by the service sector annually between 2013 and 2017. Agriculture ranks next with an average of 25 percent of GDP in 2017 and crop production mainly operated by peasant farmers takes the lion share of above 22 percent hence agriculture remains the highest employer of labour in Nigeria as the sector employs close to 70 percent of the nation's labour force. In spite of the relatively low and dwindling contribution of the oil and gas sector to GDP haven falling from 11.24 percent in 2013 to 8.69 percent in 2017 due to the 2014 global oil shock, the sector contributes 80 percent of Nigeria's foreign exchange earnings and 60 percent of central government revenue. The contribution to revenue is even higher at the sub-national level as most of the states and local governments rely on revenue from crude oil and gas for up to 90 percent of their revenue. This implies that the sector facilitates payment of salaries and other government expenditure across the nation hence the negative shocks on the sales price and demand for oil and gas exports from the country had grave implications for direct and indirect government employments and people's livelihood of workers across the nation. COVID-19 and the attendant global lockdown have therefore reduced expected revenue from crude oil and gas by 80 percent due to fall in oil price below the initial benchmark of \$57 to almost \$28 per barrel which led to a huge shortfall in revenue contributing to widening the fiscal deficit. Also, the FIRS granted tax rebates and other tax concessions that reduced revenue from non-oil sources.

On the other hand, the pandemic intensified the need for a higher level of budgetary allocation to the sectors to further enhance their operational readiness. To finance these, the government raised N2.381 trillion or USD 6.593 Billion made up of USD3.36 billion Budget Support Loan from the International Monetary Fund, New Domestic Borrowing to finance the Revised 2020 Appropriation Act including the issuance of the N162.557 billion Sukuk, and Promissory Notes issued to settle Claims of Exporters. Consequently, Nigeria's total debt profile rose to N32.9 trillion by December 2020. All these not only slowed down GDP growth but resulted in the worst economic recession in a decade and posed a challenge for fiscal sustainability and economic growth in the near future. Hence proactive measures should be taken to forestall an imminent decline in the extractive industries sector and diversify the economy by strengthening non-oil sectors to play a greater role in middle-income employment generation activities and enhance contribution to revenue.

The dynamics of the lockdown measures imposed to reduce the spread of COVID 19, gravely affected the economy and people's livelihood in Nigeria particularly the operators of small and medium scale enterprises which constitute approximately 96 percent of enterprises providing about 83 percent of jobs in the country. Consequently, the Nigerian economy declined by 6.1 by the fourth quarter of 2020 and the unemployment rate rose to 33.33 percent or 25.8 million unemployed by the end of 4th quarter 2020.

The COVID-19 pandemic had a serious adverse effect on the lives of the communities hosting the mining companies, some of them were also alleged to have degraded the environment without paying adequate attention to land reclamation or extending social amenities to the communities on whose land they operate. Also, the restrictions placed on movement and the stay-at-home measures could not allow regulators to perform their duties optimally. This may have compromised regulatory standards and provided a conducive environment for unscrupulous agents to increase illicit transfer of funds from Nigeria and further reduced foreign exchange earnings and government revenue.

The oil and gas sector in Nigeria is not labour intensive hence only 0.03 percent of the labour force is employed by the companies and only 18 percent of those employed were women while the solid mineral sector is dominated by artisanal miners and not organised. Given the dominance of women in the downstream sector of supply chains and the closure of markets where workers in the mines obtain their supplies and other services, closure of community health facilities and gender segregation in local communities, the effects of the COVID-19 pandemic on women's income and welfare are worse than could be imagined. However, efforts being made to promote investment in the downstream of the oil sector through appropriate pricing, the possible passage of the Petroleum Industries Bill (PIB), and efforts of both states and federal governments to attract major mining companies into the sector, employment level will generally increase in future. Solid mineral industries will also move away from artisanal mining which is dominated by young male adults into industrial-scale mining and value addition which will provide more opportunities for both male and female employees at low, and middle level technical and managerial levels.

As we heard from representatives of the regulatory and supervisory agencies, COVID-19 affected the performance of their responsibilities negatively. In the long run, however, the activities being carried out by the government will affect the sector positively except for the planned increase in royalties and the non-passage of the PIB which may discourage investment and induce capital flight through the sale of their Nigerian assets by some IOCs that already announced their intention to do so. Most of the regulatory bodies are, however, optimistic that the reforms being implemented will increase investment in the downstream of the oil industries, promote development of the solid mineral industries, facilitate diversification of the Nigerian economy and transform it from primary production dominant to an industrial economy.

The survey result also shows that the majority of the traditional leaders and government officials responsible for the welfare of members of the oil-rich communities reported that COVID-19 had a negative impact on productivity level, income, work environment and union activities in the communities. Union activities were largely suspended during the lockdowns hence members could not agitate or fight for themselves and the rights of others members of the community only in exceptional cases like the situation of the youth organisation in Osun state where a mine site was forced to close down as a result of what they called unbearable environmental degradation.

It has also been shown that fiscal, monetary and compensation measures including tax rebates, interest rate and tariff reduction, extension of debt moratorium and concessional financing were extended to small and medium scale enterprises and special interest groups to mitigate the effect of the pandemic. Also, during the lockdown, provision of health care, education, water and sanitation facilities were negatively impacted. However, the potential effect of these, in the long run, depends on how quickly the health challenges posed by COVID-19 are resolved. Tertiary education students have already lost learning opportunities for a year and many universities in the country have announced the cancellation of one academic session while the Joint Admission and Matriculation Board (JAMB) have postponed the matriculation examination till a later date. These all have negative implications on the youth and the future trajectory of the Nigerian economy. As predicted by respondents in the survey, residents were reluctant to take the COVID-19 vaccine in spite of efforts made to make them available. This has affected the ability of the nation to flatten the curve after Nigeria entered the second phase of COVID-19 infection. The rate of infections has stayed high and

the death rate remains at 1.2 percent. However, the nation has entered the third phase which according to experts is more virulent and more deadly.

8.2 Policy Recommendations

It is uncertain how long the current situation will last, but we may be in this for the long haul and the impacts may be enduring, which would require long-term adjustments. There will also undoubtedly require further actions as well as regulatory guidance in many areas where necessary to address the new emerging risks and the changing priorities. Although the comprehensive and swift policy actions undertaken by the government so far may have been instrumental in limiting the impact of the COVID-19 shock on the Nigerian economy and the sector, however, a lot of efforts should be geared towards laying the ground for recovery across various sectors and variables of the economy. While it is too early to assess whether the measures taken so far have achieved the desired and ultimate goals, the following policy recommendations will augment the effectiveness of the policy approach and responses taken so far in the country, economy and extractive industry.

1. Diversification of the Economy

- a) The COVID-19 pandemic has made more obvious the vulnerabilities of the Nigerian economy as it is too heavily dependent on only one sector for the financial viability of all three tiers of government in spite of the vast array of mineral deposits and other resources in the country. This is not sustainable and has to be redressed urgently by encouraging competition among the states in the development of the raw materials in their respective domains through constitutional review to enable the states to have a greater stake in the development of minerals within their states. This will facilitate the development of multiple growth sectors and reduce the vulnerability of the economy to vicissitudes in the oil and gas sub-sector.
- b) Economy should be revitalized through putting in place stimulus packages by the CBN, emergency economic stimulus supported by interim government measures that will prioritize sectors such as Agriculture, solid minerals, manufacturing and service sectors.
- c) The mining sector should be restructured to formalize the operation and activities of artisanal miners to enhance their contribution to the economy. Exploratory and related activities should be encouraged to establish the resource and reserve capability of the sector.
- d) There should be increased accessibility and robust monitoring of the utilisation and outcomes of the Solid Mineral Development Fund (SMDF) by all stakeholders in the solid mineral sector. Incentives should be made available to financial institutions for increased lending to stakeholders within the sector.

2. **Oil Sector-** To stem the imminent decline of investment in the oil sector, the Petroleum Industry Act just signed by the president should be vigorously implemented to facilitate industrial harmony in the sector, encourage the development of the offshore platforms to increase output, and the downstream sector to increase local content and employment creation. In addition, there is a need for a robust administrative reform and innovative technology for monitoring oil production in the country to facilitate a reduction in illicit fund flow from the sector.

3. **Solid Minerals-** The same principles should be applied to the solid mineral sector to enhance development of the mineral-bearing communities, facilitate industrial harmony and attract medium-scale companies and industrial giants to the solid mineral sector. These will reduce environmental degradation, improve development of the minerals into finished and semi-finished products and thereby increase local content and middle-income employment generation in the country.
4. **Health Sector-** The study also reveals the resilience of the Nigerian people and their ability to quickly adapt to a new situation which prevented escalation of the rate of infection. It also reveals the great potential existing in integrating traditional herbal and orthodox medical practices in the nation's health care architecture as many people kept themselves safe by employing traditional preventive measures like the use of herbal medicine to fortify their immune system against infection. This may also account for the relatively low death rate and it shows that there is a need to encourage the development and use of traditional medicine to complement western medicine in a national health system whose weakness has been revealed by COVID 19.
 - a. Thus, colleges of medicine in the country should develop strategies for integrating traditional medicine into their curriculum to enhance local content in the national health care system.
 - b. Research and development in pharmacological and medical technology should be enhanced and health care funding expanded to increase access to quality healthcare within the country and reverse the direction of medical tourism from outflow to inflow. This will facilitate development of a more efficient national health architecture and diversify the economy.
 - c. The number of PPEs and other products that were not produced in the country before COVID-19 and are now produced locally is a testament to the entrepreneurial zeal of the people which if fanned to flame by creating the right environment and facilities has the potential to transform Nigeria to an industrial nation in the very near future. This entails drastically increasing electricity supply and efficiency of the transportation system in the country.
 - d. Also, more centres for technology innovation and development of engineering infrastructure for creating new machines, spare parts and other facilities for easing the translation of product ideas to innovative products should be established and existing ones should be properly funded and invigorated to perform optimally.
5. **Civil Society-** There is a need to strengthen the Civil Society interface with both the government and investors with the introduction of virtual communication platforms for continuous dialogue in case of a recurrence of a lockdown situation that precludes physical interaction like the case of COVID-19 pandemic.
6. **Infrastructural Development-** Explore alternative ways to support infrastructural development with a specific emphasis on technological and digital facilities.
7. **Illicit Financial Flows-** Adequate measures and sanctions should be developed and implemented against illegal mining and the fight against illicit financial flows.
8. **Gender-** Incorporate and reinforce a gender-sensitive response to the pandemic by having a gender focal person as a member of the PTF

9. Prioritize the involvement of women across the country as beneficiaries of palliatives and stimulus packages.
10. Revise regulatory compliance in terms of corporate governance practice
11. Intensify cross-border competition and industry consolidation, to prepare for new competitors that will emerge in your industry
12. Intensify internet presence and e-commerce, penetration of 5G technology will accentuate AI and thick data
13. Finally, COVID-19 is an eye-opener to the possibilities that exist in this nation and should be used as a springboard for the country to realise its untapped potentials and work relentlessly to turn the nation's vulnerabilities into a source of strength.

8.3 MITIGATION MEASURES

Following the rapid spread of the COVID-19 across the globe, and the arrival of the pandemic in Nigeria, the Federal Government has initiated a number of mitigation measures towards curbing the spread of the virus as well as addressing the effect of the pandemic on the country's macroeconomy, sectors of the government such as the health, natural resources, businesses and the people.

8.3.1 Nigeria Policy Response and Measures

a. Fiscal Measures:

- Measures include financing huge fiscal deficit, tax rebates/deferring, reprioritizing spending to stabilise the financial system.
- During President Buhari's speech on May 29th 2020, the president directed for extension of a three-month payment moratorium for all TraderMoni, MarketMoni and FarmerMoni loans. Similar moratorium was offered to all FG-funded credits advanced by the Bank of Industry (BOI), Bank of Agriculture (BOA) and the Nigerian Export Import Bank (NEXIM).
- Contingency funds of N984 million were released to Nigeria's for Disease Control (NCDC) Contingency funds and an additional N6.5 billion was distributed for purchasing more testing kits, opening isolation centres, and training medical personnel.

b. Monetary Measures

- Responses were channelled on reduction of policy rates and liquidity support to institutions, governments and individuals as a going concern.
- Reduction of all applicable interest rates on CBN intervention facilities from 9% to 5%, and extension of moratorium on principal repayments by one (1) year, effective March 1, 2020. All in the bid to ease pressure on loan repayment.

- Creation of N1.1 trillion fund with N1 trillion to support local manufacturing to boost import substitution and N100 billion to support the health service sector and product to cushion the adverse impact of the pandemic.
- Establishment of a N50 billion fund to support households and Small and Medium Enterprises (SMEs) affected by COVID-19.
- Reduction of MPR from 13.5% to 12.5% and lower to 11.5% on 28th May and 22nd September, 2020 MPC Meetings respectively.
- Granting regulatory forbearance to DMBs to consider temporary and time-limited restructuring of loan terms and tenures to households and businesses affected by COVID-19.

8.3.2 Target Policy Measures

In order to flatten human suffering, the country responded to the policy instruments framework above on recession and corporate/financial sector distress (bankruptcy/insolvency) in order to flatten the curves.

8.3.3 Health/Social Protection:

Government resources were prioritized towards testing, treatment, protective medical supplies, expanding medical facilities, non-pharmaceutical interventions (lockdown, social distancing, fumigation) and social/financial assistance to households.

8.3.4 Financial, industrial and trade policies

Efforts were directed on interventions such as forbearance on individual, domestic and foreign debts by financial with certain reconditions, bilateral financing agreements, reductions in collateral requirements, and relaxing/tightening of trade restrictions and tariffs.

8.3.5 Social protections for the poor and vulnerable

The government equally designed some compensating measures in the form of social protections for the poor.

8.3.6 Mitigation on impact on companies operating in Nigeria

- i. The Federal Inland Revenue Service (FIRS), extended the due date for filing of the companies' income tax returns by one month among other tax relief measures approved on 25th of March 2020. These measures adversely affected government revenue from oil and non-oil sources.
- ii. Consequently, the Ministry of Finance, Budget, and National Planning revised downwards the estimated Net Oil and Gas Revenue to be available for Federation Account Allocation Committee by 80 percent from N5.47 trillion to N1.12 trillion, despite N649bn reduction in allowable fiscal deductions by NNPC for Federally funded projects/expenditures.
- iii. Estimated Customs revenue was reviewed downwards from N1.50 trillion to N1.156 trillion; and the amount expected to accrue to the VAT Pool Account also declined by N60.42 billion

from N2.089 trillion to N2.029 trillion. Thus, the amounts expected to accrue to the Federation Account decreased by 4.678 trillion from N8.572 trillion to N3.890 trillion; projected Federal Government's receipt from the Federation Account (Main pool and VAT pool) reduced to N2.353 trillion from N4.829 trillion while the estimated receipts by States and Local Governments declined from the Federation Account (Main pool and VAT pool) from N3.335 trillion and N2.497 trillion to N2.054 trillion and N1.512 trillion respectively.

8.3.7 Other Federal Government Responses

- i. The Federal Government increased spending in areas not previously budgeted for, including estimated N1.1 trillion towards the COVID-19 pandemic
- ii. Government also provided stimulus and palliative measures of N 2.4 trillion through the CBN
- iii. Government also revised the 2020 budget downwards by N1.5 trillion and \$130 million was released to support households and SMEs
- iv. Planned increase in electricity tariff was delayed till end of the lockdown and petroleum pump price was reduced by N20 per litre during the lockdown
- v. In addition to other monetary measures taken by the CBN, a N1.5 trillion Infracore project for critical infrastructure was activated.

8.3.8 International and Foreign Support Received

- i. In order to finance some of the measures undertaken by the government, a N2.381 trillion or \$6.593 billion made up of \$3.36 billion budget support loan from the IMF was raised.
- ii. New Domestic borrowing to finance the revised 2020 Appropriation Act including the issuance of the N162.557 billion Sukuk and Promissory Notes issued to settle claims of exporters.

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