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RESEARCH ARTICLE

UNDERSTANDING OFFSHORE PETROLEUM ACTIVITIES INDUCED SOCIOECONOMIC DYNAMICS OF RURAL HOUSEHOLDS IN OIL-BEARING COASTAL COMMUNITIES OF NIGERIA

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Abstract

The study creates an understanding of offshore petroleum activities induced socioeconomic dynamics of rural households in oil-bearing coastal communities of Nigeria's Niger Delta. It was carried out in six littoral Local Government Areas, 3 each from Bayelsa and Delta States in the Niger Delta, using a sample size of 471 inhabitants, selected randomly, and administered with a structured questionnaire each to obtain the data required. It was analysed with the aid of SPSS to ascertain how varying their opinions were to the issue in the region. It was discovered that offshore petroleum activities induce socioeconomic changes to the age limit, sex and marital status, educational level, household size, among others of the rural households with respect to living in the coastal oil-bearing/fishing communities of Nigeria's Niger Delta. The recommendation is that stakeholders of the petroleum industry should be mindful of the socioeconomic changes affecting the rural households and endeavour to create a balance between petroleum exploiting and living in the region.

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Introduction:-

The Nigeria's Niger Delta has been considered a region with socioeconomic tension among others. Baumuller, Donnelly, Vines & Weimer (2011), attributed most of the socioeconomic pressures on rural households in the coastal communities to the Multinational Oil Corporations (MNOCs) operating in the region. The socioeconomic conditions are aggravated by depleting environmental resources caused by the activities of MNOCs (Ingelson & Nwapi, 2014). In other words, the country's oil-based economy (Nigeria Economic Outlook, 2019), which is championed by Shell Petroleum Development Company (SPDC) since 1956, and later by other oil majors including Chevron Nigeria Limited (CNL), ExxonMobil, Agip or Eni, among others in collaboration with the State-owned Nigeria National Petroleum Corporation (NNPC) is responsible for the changing socioeconomic conditions of coastal communities in the Nigeria's Niger Delta. Iwejingi (2013) states that the joint exploitation of the region alone by these MNOCs and the State-owned corporation accounts for about 95 percent of export earnings, and over 80 percent of government revenue, as well as generating over 40 percent of the country's GDP. This revenue profile however, has changed in recent years due to external shocks on the oil industry, manifesting as depressed oil demands, production cuts and prices fluctuations (Nigeria Economic Outlook, 2019). The sector's contributions to the total GDP of the country in the first quarter of 2019 was 9.14% (NBS, 2019). Nevertheless, the activities of MNOCs are bound to continue to increase in an incredible fashion towards coastal/offshore locations of Nigeria's Niger Delta as is the case with global trend (Rochette & Wright, 2015). The stakeholders of the oil industry attributed this development to

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a number of reasons including instability, drying up of onshore wells, theft and sabotage in onshore areas (Dan-Woniwei & Okeke-Ogbuafor 2019). It was also driven by a government policy of divestment aimed at encouraging local participation in the oil industry (Dan-Woniwei & Okeke-Ogbuafor 2019). Notwithstanding, Nwankwo (2015) has earlier argued that the region has virtually nothing meaningful in terms of development to show for its wealth.

The industry's increasing presence in offshore locations around littoral regions of the world is another major environmental concern (Gates, Benfield, Booth, Fowler, Skropeta & Jones 2017; Kurtz, 2013). The offshore areas of the Nigeria's Niger Delta have recorded a fair share of the industry's monumental events (Bebetideh & Poku, 2016). Such critical concerns include the industry's impact on marine ecosystems and biological resources (Abowei & Ogamba, 2013). Undoubtedly, offshore petroleum activities of MNOCs has the potential directly or indirectly to transforming the socioeconomic conditions of rural households (fisher folks) in and around coastal communities. Although, there are divergent views about the people's conditions and the regions' calamities, it is evident in most of the existing assessments that offshore petroleum activities in Nigeria's Niger Delta provoke devastating consequences on coastal fishing communities (Abowei & Ogamba, 2013). The changes not only threaten the health of the natural environment, but also poses negative socioeconomic conditions on the people (Agbonifo, 2016; Uzoma & Mgbemena, 2015; Omoredede, 2014; Kadafa, 2012a; Kadafa, 2012b).

The sector as it negatively transforms the socioeconomic conditions of rural households in the coastal oil-bearing and mostly fishing communities in the Nigeria's Niger Delta has not been adequately clarified. As a result, this study makes the clarification that offshore petroleum activities in Nigeria encourage socioeconomic changes that impinge on the survival of rural households in coastal oil-bearing/fishing communities of the Niger Delta. It induces changes in the age range and gender composition of those engaged in fishing, and their marital status and family sizes, educational level as well as their annual incomes. It recommends that stakeholders of the petroleum industry in Nigeria should ensure that the culture and traditions of the rural households living in the coastal oil-bearing communities of the Niger Delta are adequately preserved for posterity.

Offshore Petroleum Activities and the Changing Socioeconomic Conditions of Coastal Communities in Nigeria

Undoubtedly, petroleum activities have triggered massive alteration of the environment and reduced the socioeconomic capacity of the people of Nigeria's Niger Delta. Abowei & Ogamba (2013) reports that offshore petroleum activities greatly impact on the socioeconomic capacity of traditional fisher folks of coastal communities in the Niger Delta. Their study reveals that two major events; oil blowout in January 1980 and gas explosion in February 2012, both at Funiwa 5 were responsible for the negative conditions still ravaging the people of Koluama Clan and its neighbouring communities. Such negative socioeconomic conditions confronting the rural households of coastal communities need further inquiry and clarification in the region.

However, coastal communities in this study should not be misconstrued as coastal cities. We refer to them basically as oil-bearing/fishing communities or settlements located on the coastal barrier Islands of the Atlantic Ocean within the Niger Delta. These communities are located in regions comprising freshwater forest trees that interlocked with mangrove forests. The lands are prone to tidal erosion as waves often bang on them. These lands are usually broken from one another by estuaries from which the tributaries of River Niger (River Nun, River Forcados, Middleton, Pennington, among others) opens into the Atlantic Ocean. The soil is sandy with minimal amount of organic matter. Therefore, they are very loose and can hardly retain water to support the growth of crop plants. Economic crops found in the area include coconut, almond and other fruit trees.

Generally, the coastal region is described as an enclave containing highly productive and diverse ecosystems that in turn support a range of socioeconomic activities including fisheries for survival of the coastal people (McElduff, 2016-17). Artisanal fishing is the main occupation of the inhabitants of coastal barrier islands of the Nigeria's Niger Delta. That is, they engage mainly in fishing for livelihood. Such activities include marine water fish farming, processing and marketing. The fisher folks embark on fishing mainly in inland rivers, lagoons and creeks, and also make regular incursion into the Atlantic Ocean, sometimes extending to about five nautical miles off the sea shore (Akingba, Afolabi & Ayodele 2017; Adesulu & Sydenham, 2002), especially during the dry season when the waves size becomes smaller and less turbulent. Large populations of artisanal fisher folks who live along the coastline rely on the use of small fishing gears. Oladimeji, Abdulsalam & Damisa (2013), and Inoni & Oyaide, (2007) respectively stated, the fishing gears and equipment used by artisanal fishermen are not sophisticated, and comprises hooks and line, fish traps, cast net, gill net, fishing craft mostly paddled canoes and a few motorized

canoes, which are operated by 3-6 persons. Fish farming, on the other hand, takes place in ponds constructed on the chikoko soil of the tidal flood plains. The source of water for these ponds is underground water, which seeps through the chikoko. Usually, the fingerling for stocking is obtained from the wild, especially the flood plains. Other economic activities carried out in coastal communities include basket making and carving of dugout canoes, whose raw materials are cane ropes and large trees obtained from the forest.

Pollution from offshore petroleum activities affect the economic activities of coastal communities. In the offshore sector, pollution occurs mainly by accident in the study area. Marine petroleum pollution is pollution irrespective of the form or mode of occurrence. When it occurs, it brings harm to the environment and the inhabitants of the coastal communities. In particular, it evidently destroys bio-resources and jeopardizes livelihoods of the coastal communities because it halts fishing activities of fisher folks (Abowei & Ogamba, 2013), and damages fishing gears with no means of replacing them in the very short-run. On the long-run, the people face untold hardships because they mainly depend on fishing to sustain their large families.

Characteristics such as age, marital status and family size among others remain adaptive measures of rural households to the unfolding socioeconomic conditions of oil-bearing coastal communities in Nigeria's Niger Delta. In the study by Olaoye et al., (2012), it was established that 59% of fisher folks (rural households) within the age bracket of 21 and 40 years are married, and are operating a nuclear family. Whereas, Onemolease & Oriakhi (2011) pegged an average family size (household membership) of seven (7) persons in each artisanal fishing community in Delta State. Evidently, most of the artisanal households have large family sizes, and the head of the household in the fishing communities in Nigeria usually, are males (F. Akinwumi, Akinwumi & Ogundahunsi 2017). The large family sizes are traceable to the extended family system and occupation of the people. A large family size constitutes an important labour source for the head of household in either a fishing or farming community. The large household size especially in a fishing community also, can be traceable to polygamy (Lawal, Obatola, Giwa & Alhaji, 2016). Also in their studies, it was observed that almost every average aged fisherman involves in polygamy in order for the wives to assist him in sales and processing of the fish catch. Their study also revealed that a fisher folk has a compound, which consists of four or more number of huts, one for each of the wives and one for the husband, but they all eat from the 'same pot'. Such a living implies that the daily income of fisher folks is a major factor for the large family sizes in fishing communities. However, the daily income of the family depends on the catch volume with respect to the type of fish or species composition of the catch. It is also determined by the freshness of the fish for such enhances easy sales and improved prices. This translates to better earnings.

Income limits majority of rural households from meeting their family obligations. It has been observed that most fisher folks are not members of any fisher cooperative society. Hence, they are limited from accessing credit facilities from financial institutions and government agencies. It is noteworthy that credit facilities enable fisher folks to make large investments in the occupation. However, it has been argued, artisanal fisheries in Nigeria suffers low capital investment and high labour intensive practices (Oladimeji, Abdulsalam & Damisa (2013). Abowei & Hart (2008) had earlier argued that the low investment in the sector can be attributed to the earnings of fisher folks. In the light of this, they explained that a fisher folk highest earnings per annum was one hundred and twenty-one thousand, forty-nine naira and thirteen kobo or one hundred and eight dollars, seventy-four cents (₦121,049.13 or \$1008.74), spent for drift net, while two thousand, seven hundred and fifteen naira, eighty-four kobo (₦2,715.84 or \$22.63) as the least annual earning, spent also for local fishponds. In addition, the estimate for cast net, gill net, hook and line, assorted traps and stakes recorded eight thousand, five hundred and twenty naira, twenty-four kobo (₦8,520.24 or \$71.00), nine thousand, four hundred and twenty-five naira, forty-eight kobo (₦9,425.48 or \$78.55), three thousand, two hundred and eighty-two naira, seventy-five kobo (₦3,282.75 or \$27.36) and eight thousand, nine hundred and twenty-three naira, sixty-one kobo (₦8,923.61 or \$74.36) (at ₦120.00 per United States Dollar (USD) in 2008) respectively (Abowei & Hart, 2008). Furthermore, Okwu, Yahaya & Obinne (2011) report that the annual income distribution of majority of the fisher folks indicate that 56% earn more than three hundred thousand naira or one thousand, eight hundred and seventeen dollars, eight cents (₦300,000.00 or \$1817.08). This study shows that the fisher folks earn an income range of fifty-one thousand naira or three hundred and eight dollars, ninety cents (₦51,000.00 or \$308.90) to one hundred thousand naira or six hundred and five dollars, seventy cents (₦100,000.00 or \$605.70) (at ₦165.10 per USD in 2011), which is an improvement over previous findings of Akegbejo-Samson (2006) and Adeokun, Adereti & Opele (2006) respectively. However, it still points to the fact that the annual income of a fisher folk is still relatively low, considering the present cost of living. This might account for their inability to use modern fishing gears and improved fishery practices in their fishing activities.

Ijatuyi, Abiolu & Olaniyi (2016) discovered that about 65% fisher folks are not members of any social group, while 35% are members, which indicate that majority did not have social affiliation within their environment. This contradicts the findings of Ofuoku et al. (2008), which was that farmers who subscribed to joining social organizations have more access to information and credit, input and aids from government agencies and extension workers. In the same vein, fish folks who join fish farmer associations did so because of easy access to extension services, market and credit facilities. Okwucho, Asogwa & Obinne (2012) and Basorun & Olakulehin (2007) in their studies, affirm that fish farmers joined fish farmer association in Lagos State, because of the results achieved by members, mostly in terms of the association's link to markets, credit facilities and extension services. This explains that fisher folks who do not have social affiliations are deprived of some opportunities only membership in an association can offer.

The gender composition of families determines the role each member of a household plays in coastal fishing communities. Lawal et al., (2016), Olaoye et al. (2012), Onemolease & Oriakhi (2011), and Akpoko (2003) have in their separate studies observed that artisanal fishery, particularly the offshore sector is a male dominated occupation, with an age range of 20 – 60 years in Nigeria. The reason for the male dominance and/or low female participation in the sector was because of the risks associated with the offshore fishing activities (Onemolease & Oriakhi, 2011; Okwu et al., (2011). However, (Okwu et al., 2011) based their argument on the notion that fish capture involves hard labour, it is strenuous and risky for most female folks to withstand.

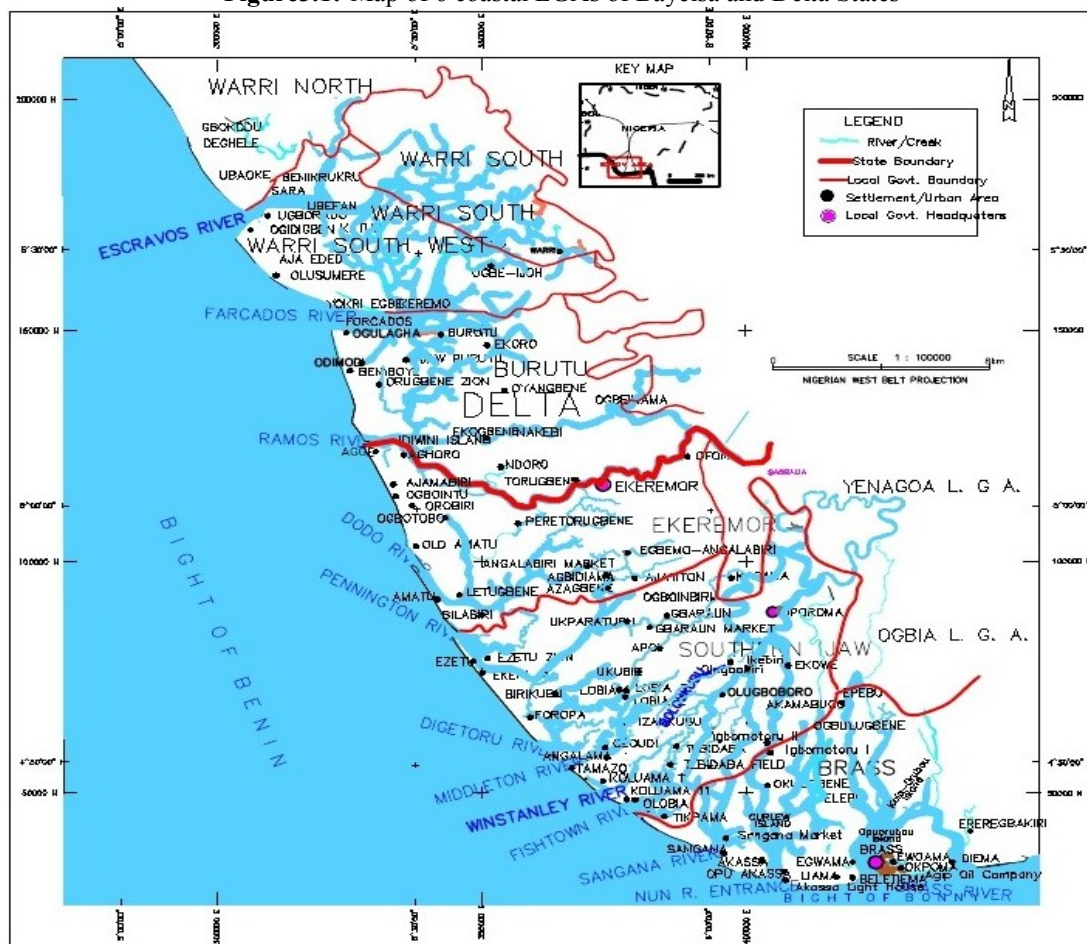
Formal education and experience are key players in the socioeconomic development of the people in coastal fishing communities in Nigeria. Several historical facts attest to the fact that the coastal communities along the Atlantic coast of West Africa have first contact with the Europeans. Evidently, their early interaction with the Europeans makes these communities known to be highly educated. However, over 60% of the fisher folks in times past had no formal education up to the senior secondary education level, but gain the knowledge and skill of fishing within the household through regular participation with their parents (Oruonye, 2014). In line with this submission, Tshiunza, Lemchi & Uloma (2001) was more emphatic in stating that artisanal fisher folks had low educational background. While Okwu et al., (2011) supports the view of experience, and state that those involved in fish capture are in the active age bracket.

Methodology:-

Data Collection:

The data for this study was obtained from a field survey involving a sample size of 471 inhabitants or respondents selected with the aid of Raosoft online software calculator, set at a minimum error margin of not more than 5% from the total population of the two States. The instrument used for the survey was a structured questionnaire. The questions it contains were rated on a four-point Likert ordinal/rating scale. In addition, stratified and snowballing sampling techniques were used to randomly select the respondents from 23 coastal communities in 6 coastal Local Government Areas (LGAs), 3 each from Bayelsa and Delta States, and 12 institutions/agencies (see Figure 3.1, Tables 3.1 and 3.2 respectively for details).

Figure 3.1:- Map of 6 coastal LGAs of Bayelsa and Delta States



MAP SHEWING COASTAL L.G.A.'S / COMMUNITIES OF DELTA AND BAYELSA STATES
SOURCE : OFFICE OF THE SURVEYOR-GENERAL YENAGOA BAYELSA STATE

Table 3.1:- Population distribution of the study area by LGAs.

Bayelsa State		Delta State	
LGA	Population	LGA	Population
Brass	184,127	Burutu	207,977
Ekeremor	269,588	Warri North	136,560
Southern-Ijaw	321,808	Warri South-West	116,538
Total	775,523		461,075

Source: NPC, 2010 (2006 census projections 2015)

Table 3.2:- Sample distribution [study population] per LGA and institutions/agencies.

State/Institutions	LGA	Community	Number of Questionnaire	Sample size using proportional distribution
Bayelsa	Brass	Sangana	20	36
		Fish-town	16	
	Ekeremor	Ajamabiri	10	50
		Ogbointu	10	
		Agge	15	
		Amatu	15	
		Ekeni	19	

	Southern-Ijaw	Ezetu I	19	110
		Ezetu II	19	
		Foropa	21	
		Koluama I	20	
		Koluama II	22	
Delta	Burutu	Beniboye	11	51
		Ogulagha	15	
		Odimodi	14	
		Sokebolor	11	
	Warri North	Ajamogha	13	46
		Abegborodo	18	
		Ayogboro	15	
	Warri South-West	Ogidigben	20	58
		Olusumere	12	
		Ugborado	15	
		Yokriegbe	11	
Institutions/agencies	Chevron		8	120
	NNPC		20	
	DRP		5	
	NCDMB		5	
	NESREA		5	
	NDU		20	
	DELSU		21	
	ENV/CIVIL RIGHTS		5	
	MIN. OF MIN. RES. BYS		5	
	MIN. OF ENV. DELTA		10	
	MIN. OF OIL & GAS DELTA		6	
Total	6 LGAs and 12 institutions			n=471

Data Presentation and Analysis:

The response(s) to each question by each of the 471 respondents as rated on the Likert scale - strongly agreed = 4; agreed = 3; disagreed = 2; strongly disagreed = 1, were collated and analysed using the Statistical Package for Social Sciences (SPSS). The results are tabulated with percentages and discussed accordingly. This process avoided incorrect results that could have undermined the integrity of the outcome of the study (see Table 3 for the details).

The analyses of the result with respect to the parameter of age, indicate that about 26.33% of responses fall between people of ages 20 – 30 years, 30.79% 31 – 40 years, and 41 – 50 years had 25.27% of the respondents, while 51 – 60 years represented by 11.04% and 61 and above was 6.58%.

For gender, it shows that males were 67.73%, while females were 23.27%. The results on educational qualification reveals that majority of the people who remained in the villages to fish and carry out other economic activities are holders of First School Leaving Certificate (FSLC) represented by 68.58%. This is followed by holders of West African School Certificate (WASC) or its equivalent with 45.01%. Still on educational qualification, it was identified that 11.05% of the respondents had tertiary education certificates such as Ordinary National Diploma (OND), National Certificate in Education (NCE), and Bachelor degree and above.

In addition, the results on the variable of marital status reveal that 10.62% of the respondents are single, while majority (68.58%) of them are married. The heads of household who are divorced are 5.52% and widows/widowers are 10.40% of the respondents. Furthermore, those that are separated are 4.46%. While the results on household size indicates that household size is predominantly an average in size. Result on the number of members of a household of 1 – 5 members is 3.19%; 6 – 10 family members is 33.12%; 11 – 15 persons, 49.05% and 16 – 20 persons is 14.65% respectively and a membership of 20 and above is zero percent.

Furthermore, an analysis of the average income of households per annum reveal that 18.47% of the respondents make an average annual income of ₦240,000.00 or (\$667.60 USD) to ₦360,000.00 or (\$1,001.40 USD); two hundred and thirteen persons, representing 45.22% of the respondents, earn an average annual income of ₦361,000.00 or (\$1,004.20 USD) to ₦480,000.00 or (\$1,335.20 USD), while one hundred and twenty-six persons, representing 26.75% confirmed that they make about ₦481,000.00 or (\$1,337.00 USD) to ₦600,000.00 or (\$1,669.00 USD) annually. Additionally, forty-five persons attested to the fact that they make an average annual income of ₦601,000.00 or (\$1,672.00 USD) to ₦960,000 or (\$2,670.40 USD) (exchange at ₦359.50 to \$1.00 USD in 2019) (see Table 3).

Table 3.3: -Socioeconomic dynamics of rural households of oil-bearing coastal communities in the Niger Delta.

Socioeconomic Dynamics	No of Responses	Relative	Percentages (%)
Age of head of household			
20 – 30 years	124		26.33
31 – 40 years	145		30.797
41 – 50 years	119		25.27
51 – 60 years	52		11.04
61 years and above	31		6.58
Sex			
Male	319		67.73
Female	152		32.27
Marital status			
Single	5		10.62
Married	323		68.58
Divorced	26		5.52
Widowed	49		10.40
Separated	21		4.46
Educational Level			
Less than FSLC	23		4.88
FSLC	154		32.70
WASC	212		45.01
Tertiary	52		11.05
Household size			
1 – 5	15		3.19
6 – 10	156		33.12
11 -15	231		49.05
16 -20	69		14.65
21 and above	0		0.00
Occupation			
Fishing	161	34.18	
Farming	3		0.64
Govt. employee	161		34.18
Trading/ businesses	124		26.33
Company employee	22		4.67
Average income /annum			
₦240,000 - N360,000	87		18.48
₦361,000 – N480,000	213		45.22
₦481,000 – N600,000	126		26.75

Discussion:-**Age of Heads of Household:**

The results as indicated in Table 3 reveal that the ages of majority of the heads of household are within the age bracket of 31 – 40 years, which is 30.79% and 41 – 50 years, 25.27%. On the other hand, some of the heads of household fall within the age bracket of 20 – 30 years, which is 26.33% of the respondents, while 51 – 60 years had 11.04% and 61 years and above is 6.58%. From these results, it could be deduced that fishing is the predominant occupation for households in coastal communities of Nigeria's Niger Delta. This result falls in line with Olaoye et al., (2012), which concludes that 59% of the fisher folks fall within ages 21 and 40 years. This is true but there is a little difference in this case. The difference is that the residents/communities in this study were in their permanent homes; while that of the population presented in Olaoye et al., (2012) was a temporary or transient population. In addition, the result of this study are indicative of the fact that the households belong to the economically active age bracket, and have also gained some level of occupational cum professional experience since they have depended on it for a relatively longer period. This assertion was affirmed by Okwu et al., (2011) who states that the age of those involved in fishing are in the active age bracket.

Gender:

The result on gender show that males were 67.73%, while females were 23.27%. This reveals that fishing is culturally an occupation for the males, especially the offshore sector. This position supports a number of other studies including Lawal et al., (2016); Olaoye et al., (2012); Onemolease & Oriakhi (2011), and Akpoko (2003) respectively. The reason was that the occupation is energy demanding and risky as the sector is conducted under unpredictable weather conditions, ocean currents and turbulent waves to manoeuvre for a good catch (Lawal et al., 2016). Onemolease & Oriakhi (2011) therefore, submitted that the risks associated with the offshore fishing sector was responsible for the low female participation in the activity. Okwu et al., (2011) also uphold the view that female folks are few in fishing because they cannot withstand the hard labour and strength it requires, as well as the risks associated with it. Interpersonal interactions with fisher folks in the study area also revealed that the few women involved are either widows or divorcees who are now heads of household. In other words, they are women left alone to take care of their children. The result further confirmed an earlier finding by Fregene (2007). The implication of this is that the teenagers (boys and girls) drop out of schools and get involved in acts inimical to the original culture and traditions of the people.

Marital Status:

The result indicates that 10.62% of the respondents are single, while the majority (68.58%) of them are married. The heads of household who are divorced stood at 5.52% and widows/widowers constitute 10.40% of the respondents and those separated are 4.46%. The result indicates that artisanal fishermen live a real family life however; it is unfortunate that some inevitably died leaving the women to assume the status of heads of household. The single head of household is probably ephemeral fishermen who source for cash to pay their children school fees or may have been hit by the hazards of fishing and therefore, died untimely. Furthermore, this is consistent with the findings of Olaoye et al., (2012) who identified that 59% of the fisher folks aged between 21 and 40 years are married. Fishing as an occupation, is strenuous and demanding therefore, the men may be too exhausted to prepare meals when they return. This could inform why fisher folks seek partners to assist them in carrying out domestic chores, most especially preparing the meal and processing the fish for marketing.

Household Size:

The household sizes indicate that they are predominantly an average size. The number of members per household of 1 – 5 members, 3.19%; 6 – 10 family members, 33.12%; 11 – 15 persons, 49.05% and 16 – 20 persons, 14.65% respectively, and there was no household with a membership of 20 and above. This result has a little variance with the findings of Onemolease & Oriakhi (2011), which observed that the average household membership (family size) of each artisanal fishing community in Delta State was in the range of seven (7) persons. In this research, the household size of the coastal (fishing) communities of Bayelsa and Delta States were as large as 11 -15 members. This figure implies that most artisanal fisher folks have a large household size. The reason for large family size could be attributed to the practice of an extended family system. The people lives as supportive groups as a way of strengthening their kinship structure. Secondly, because of the extended family system, the spouses of those who prematurely, dies and leaves their immediate families in terrible conditions, are absorbed into the extended family

circle for meaningful living. Absorbing other extended family members was never a problem, as a large household constitute an important labour source for such families in either fishing or farming communities).

Educational Qualification:

The findings on educational qualification reveals that the majority of the people who remained in the villages to fish and carry out other economic activities are holders of First School Leaving Certificate (FSLC) represented by 68.58%. This is followed by holders of West African School Certificate (WASC) or its equivalent with 45.01%. Still on educational qualification, it was established that 11.05% of the respondents had tertiary educational qualification such as Ordinary National Diploma (OND), National Certificate in Education (NCE), and Bachelor's degree and above. This result is in line with the research of Oruonye(2014), which observed that over 60% of the fisher folks had no formal education or just had primary education, but they all gained the knowledge and skill of fishing within the household through regular participation with their parents. In addition, this study slightly supports the submission made by Tshiunza et al. (2001), which states that artisanal fisher folks had low educational background. In other words, the result shows that holders of FSLC and WASC holders dominate the fishing sector in coastal communities. However, it is not the case with the entire population as those who have acquired higher education have migrated to the cities to seek white-collar jobs that are more befitting to their educational status. This position was captured by the study of Oruonye(2014), which observed that coastal communities along the Atlantic coast of West Africa are highly educated. This, the study attributed to the historical evidence that they had first contact with the Europeans. In addition, personal interactions reveal that there are virtually no jobs for the holders of FSLC and WASC from either the MNOCs or government in the area. Coupled with that was the lack of capacity in the people to pursue higher degree certificates under self-sponsorship outside their locality. One respondent said that "abandoning fishing for further studies means signing a death warrant for his large family".

Annual Income:

The average income of households per annum revealed that 18.47% earn an average annual income of ₦240,000.00 or (667.60 USD) - ₦360,000.00 or (1,001.40 USD); 45.22% earns an average annual income of ₦361,000.00 or (1,004.20 USD) - ₦480,000.00 or (1,335.20 USD), while 26.75% survives in the range of an income of about ₦481,000.00 or (1,337.00 USD) – ₦600,000.00 or (1,669.00 USD) annually, and 9.56% lives on an annual income of between ₦601,000.00 or (1,672.00 USD) - ₦960,000.00 or (2,670.00 USD) (exchange at ₦359.50 per 1.00 USD in 2019).

This indicates that the people of oil-bearing coastal (fishing) communities in the Niger Delta are predominantly low income earners. It also means that majority of the people are poor, confirming the study by Oladimeji et al., (2013), which submits that low capital investment and high labour intensive practices characterizes artisanal fisheries in Nigeria. The daily income of the fisher folks depends on catch volume, type of fish or species of the catch. Since fisher folks' income are dependent on fish catch, the low level of livelihood and poverty prevalent in the study area could be attributed to the depletion of the ecological resources caused by the offshore oil and gas exploitation activities in the region. Adeyemo, Ubiogoro & Adedeji (2009) confirms that massive mangrove forest die-off is a common phenomenon in the coastal regions where oil exploitation activities are ongoing. The study emphatically, states that such imprints of the operations of MNOCs are visible throughout in the Niger Delta. In addition, Manby (1999) asserts that oil spills are "homicidal in effect", destroying immense tracts of the mangrove forests which are especially susceptible to oil (mainly because it is stored in the soil and re-released annually during inundations). Accordingly, the study estimated that about 5% to 10% of Nigeria's mangrove ecosystems have been gradually wiped-out by either oil exploration and production activities or settlement. The evidence is so copious and it suffices to say that the income of communities in the study area have been dealt with a serious blow from the offshore operations of MNOCs. Nwilo & Badejo (2005) states that the mangrove habitat provides a wide range of natural ecosystem goods and services that are beneficial to man. Such ecosystem goods and services of the mangrove forest include fuel wood for the coastal communities and serves as habitats for many aquatic organisms and animals, as well as serves as barriers to protect the communities from storms and tidal waves and coastal erosion. Adeyemo et al., (2009) increases the list of the services to include stabilization and protection of shorelines, filtering, trapping and removal of water-borne pollutants, maintenance of nursery and feeding grounds for numerous species of finfish and prawns and habitat for crabs and molluscs, as well as the provision of nesting sites for sea and shore birds. The scenario painted by Nwilo & Badejo (2005) and Adeyemo et al., (2009) was further confirmed by this study, that the depletion of coastal and marine habitats undermines the survival of the people of the oil-bearing coastal (fishing) communities. It is important therefore, to state that an alteration of the ecosystem through reckless exploitation of oil and gas resources could spell doom for humanity living in the oil-bearing areas of the world.

Conclusion:-

The study creates the understanding that offshore petroleum activities induces socioeconomic dynamics of rural households in coastal oil-bearing/fishing communities of Nigeria's Niger Delta. It shows that the socioeconomic dynamics of rural households have inherent variations. For example, the age range of majority of the heads of household are within 31-40 years, which represents 30.79% that engaged in the main occupation (fishing) of the people due to the risks that is associated with it in recent times. Those who engage in it are mostly energetic male households due to unpredictable weather conditions, ocean currents and turbulent waves offshore. It also requires special skills to manoeuvre into areas extending five nautical miles offshore in order to have a good catch. It is not out of place to state that women are not in it because men culturally are the bread winners of the family.

It also establishes that the coastal communities hold family life in high esteem. Thus about 68.58% of the heads of household are married. Social and natural phenomenon such as death cannot be ruled out, widows and widowers and divorcees or separated for various reasons are accommodated irrespective of the household size as part of the extended family system and supportive life style, which strengthens their kinship structures.

The people had basic education that was necessary to carry out their occupation for livelihood as knowledge and skills of fishing are gained through communal participation. However, several members of households could not afford to further their education due to consideration of cost and their family sizes, while those with higher education, migrate to urban centres for white collar jobs. The average annual income of households per annum dwindles between ₦240,000 or (667.60 USD) – ₦360,000 or (1,001.40 USD) representing 47% of households. This establishes the fact that such number of people living in the coastal region of Nigeria's Niger Delta are predominantly low income earners and are poor. This has been further complicated by the offshore petroleum activities in the area.

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