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**MONETARY COMPENSATION FOR OIL SPILL DAMAGE IN NIGER
DELTA REGION, NIGERIA: A QUESTION OF ADEQUACY**

**ДЕНЕЖНАЯ КОМПЕНСАЦИЯ УЩЕРБА ОТ РАЗЛИВА НЕФТИ В
ДЕЛЬТЕ РЕКИ НИГЕР (НИГЕРИЯ): ВОПРОС СООТВЕТСТВИЯ**

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Abstract. The impairment of interests due to oil spill damage necessitates valuation for compensation purpose. However, the question of adequacy of the compensation offered to victims of oil spillage in Niger Delta Region (NDR), Nigeria remained unanswered after decades of oil exploration and pollution in the region. The paper examined the disparity between the expected and actual monetary compensation paid to claimants for their impaired interests. A multistage sampling method was applied and data were randomly collected from residents of five oil producing communities in the region using questionnaire. In all, 1,940 questionnaires were administered but 1,125 (57.99 %) were found suitable for the analysis. The data collected were analyzed descriptively and inferentially. The results of Kruskal Wallis test showed a significant difference in the residents' description of compensation adequacy across the selected communities; Chi-Square (χ^2) = 33.221, p-value = 0.000. The result of T-test indicated that there is significant difference between the expected and actual compensation paid based on the current practice in the each of the selected communities in NDR. The paper recommended that as much as the cleanup

programme contemplated by the present administration is important, the issue of compensation for damaged interest also should be given the required attention.

Аннотация. С целью компенсации требуется оценка ущерба от разлива нефти. Однако вопрос об адекватности компенсации, предложенной пострадавшим от нефтяного разлива в районе дельты реки Нигер (ДРН) не решен до сих пор, после десятков лет эксплуатации этого нефтяного месторождения и его загрязнения. В статье рассматривается несоответствие между ожидаемой и фактической денежной компенсацией, выплачиваемой пострадавшим за нанесенный ущерб. Был применен многоступенчатый метод выборки, данные были собраны в пяти нефтедобывающих объединениях региона с помощью анкетирования населения. Всего было опрошено 1940 респондентов, использовано для анализа 1125 анкет (57,99 %). Полученные данные проанализированы описательно и по существу. Результаты теста Крускала Уоллиса показали значительную разницу в характеристиках, данных жителями выбранных объединений, относительно адекватности компенсации: $\chi^2 = 33,221$; р-значение = 0,000. По критерию Стьюдента определено, что существует значительная разница между ожидаемой и фактической компенсацией, выплачиваемой в каждом из рассматриваемых объединений ДРН. В статье даны рекомендации по выполнению программы очистки, предусмотренной нынешней администрацией, также должен быть решен вопрос о компенсации за нанесенный ущерб.

Key words: adequacy, Compensation, Niger Delta, Oil Spill, Impaired Interest

Ключевые слова: соответствие, компенсация, дельта реки Нигер, разлив нефти, нарушение интересов.

1 Introduction

The menace spillage resulting from exploration, processing and transportation of crude oil and its products necessitates compensation for its victims, be it private or public. The frequency of oil spills in Niger Delta Region (NDR), Nigeria has brought the region to the international limelight. The region has been described as the most polluted part of the world (Vidal, 2011). Okeowo (2014) noted that about 90% of oil spill in Niger Delta is yet to be cleaned up, thus subjecting the region to serious environmental pollution especially the fragile natural environment from where many of the residents derive their means of livelihood.

The impact of oil spill on the people of NDR cannot be overemphasized. These include colossal loss of farmland, shrink fisheries activities, pollution of source of drinking water, desecration of sacred places, health hazards, and ultimately loss of lives. Oil spill have both short and long term physical and psychological effect on people (Institute of Medicine, 2010). In the words of Oluduro (2012), *“the people of the Niger Delta region have continued to pay the price of development of the nation with their lives, health, cultures, environment and other means of livelihood”*. Many of the residents of the region have been displaced from their native land as a result of poverty arising from unproductive land and oil polluted environment (Kadafa, 2012; Terminski, 2011; Opukri & Ibaba, 2008).

A redress available to the oil spill victims is to seek compensation for their impaired interests. In Nigeria, the service of an Estate Surveyor and Valuer is essential to determining compensation value. It is worrisome to note that many compensation claimants are dissatisfied with monetary compensation paid for the impaired interests and many have resorted to vandalizing oil and gas installations, oil theft, abduction of employee of oil and gas industries, operation of illegal oil refinery, violent protests, among other mischievous activities. This unwholesome activity is drowning the Nigeria mono economy, which has its

foreign earnings of ninety five percent from exploitation of oil and gas resources.

It is against this background that this study examines the shortfall of expected compensation and the actual payment made by the polluter to victims of oil spill for damages in the study area. Following the foregoing introduction presented in section one of this paper, section two is literature review, followed by methodology in the third section. Section four presents the results of the empirical investigation and the concluding Section comprise of recommendation and conclusion.

2 Literature Review

Nature of Impacted Interests in Oil Spill Damage and Admissible Claims

An assignment preceding compensation assessment is the establishment of impacted interests and identification of various heads of claims under which claimant is to be compensated. The extent of damage resulting from oil spill depends on some factors. According to Dick (2006) such factors include the type of oil, the time of the year when the spill occurs, the weather condition and success of the cleanup undertaken. The operations of oil companies operating in NDR cover both on and off-shore areas; thus the divergent nature of impacted interests. Akujuru and Baridoma (2007) observed that in Nigeria, only surface right and interests and structures are recognized heads of claim in the current practice. Surface right resources comprise of economic crops/tree, natural and man-made fishery and fishing contrivances, and wildlife sanctuaries, breeding spawning grounds. The impaired interests classified under structures include: buildings of various types, roads and access ways, shrines and sacred places.

There is always a controversy in what is recognized as admissible claim and the expectation of the oil spill victims. Babawale (3013) studied the valuation reports submitted for compensation claims on oil spill damage in Niger Delta. The identified heads of claims included in the reports are injurious affection, ecological degradation, health hazards, loss of fishing rights, loss or damage of

fishing traps/nets/ponds/hooks, loss of shrine and general claims. Ibagere (2002) observed that an important head of claim to compensation claimants is spirituality attached to the use of land; thus compensation for desecration of Inyosa family Juju shrine, and Ikhimwin-no-zokpa shrine at the bank of Ikpoba River in Edo state were upheld by the High Court and the clients got the total claims as presented by the valuer.

In order to make compensation equitable, studies such as Otegbulu, (2005, 2007, 2009), Udo and Egbenta, (2011) advocated for Total Economic Value (TEV) concept as basis for determining compensation payable for environmental goods subjected to contaminations. This concept recognizes the direct use, indirect use, non-use, option, bequest, and existence values as components of TEV of land resource. An attempt was made by Bello and Olukolajo (2016) to classify various heads of claim based on the expectations of residents of Abereke community – an oil producing community in Ondo State. The study indicated that not all aspects of the TEV based heads of claim were considered very relevant to private claimants in relation to wetland ecosystem. Specifically, use value such as fish harvesting, gathering of other non-aquatic life, source of drinking water, fiber and fuel, food/crop production, spiritual inspiration, recreational use, gathering of medicinal herbs, were ranked high among extractive use of wetland considered to be included in claims to arrive at acceptable compensation. Similarly, values attributed cultural heritage of the people were ranked high among the non-use value of wetlands.

Akujuru and Yalaju (2015) have argued that TEV as a basis for determining compensation is impracticable in Nigeria owing to the existing legal framework for compensation practice. According to Otegbulu (2009), the Nigerian legal framework is either not designed to capture the TEV of wetland resource, or misinterpreted by the practitioners. Hayward (2014) considered compensation valuation as statutory in nature; therefore, it is expected that statute or regulation should spell events which may give rise to compensation claim, those who may be entitled to claim, the type of loss, and structure of the claim and the method

of claiming compensation. Unfortunately there is no single document that can serve this purpose in Nigeria. Valuers have relied on dozens of uncoordinated statutory provisions to make compensation claims to oil victims. With the exception of Oil Pipeline Act, Cap 33 of 1996, Babawale (2013) argued that all other existing legislations address only tangential matter leaving the crux of the matter unattended.

Although most international treaties on oil pollution are based on marine environment, the impacts are not always limited to the sea particularly under the intense ocean waves. The impacts of oil spill are often strongly felt at the shore and adjoining land area. International Oil Pollution Compensation Funds – IOPC Fund (2011) reviewed various oil spills of international concern and presented the nature of impaired interests and heads of claim considered for compensation to include clean-up cost and preventive measures, damage to property, fishery-related, environmental damage, economic loss, and environmental risk assessment indemnification.

The current practice of compensation valuation in Nigeria rely substantially on the predetermined rate prepared by Oil Producers Trade Section (OPTS) of the Lagos Chamber of Commerce and Industry - a private sector group which represents the interests of oil and gas producing companies in Nigeria). Although the OPTS appears to be more comprehensive than similar predetermined rate meant to be prepared by “appropriate officer” under section 4 (a-c) of Land Use Act (LUA), the legality of the OPTS rate as the basis for compensation payment has been challenged in law court. It is worthy to note that the original intent of compensation as described in LUA is for land compulsorily acquired for overriding public interest; in the same vein, OPTS has only been adapted to compensation for oil spill damage. Babawale (2013) opined that at best the various admissible claims recognised in the OPTS rate are administrative provision which may be difficult to enforce in law. Akujuru (2005) described the use of OPTS rate amounts as oil companies being accused and judges in their own courts.

Measurement of Compensation Adequacy

Although most legislation agree that compensation for damage resulting from oil spill as well as compulsory acquisition of land by the state is justifiable and recommended fair, adequate or just compensation, the description of what is fair, or adequate is shrouded in ambiguity. Elliott (1977) asserts that compulsory acquisition laws always leave undefined the measure or yardstick for assessing compensation; therefore, these are most times left in the hands of arbitrators and juries to decide. Cernea (2008) asserts that compensation for losses is economically justified, legally obligatory and immediately indispensable.

The need to determine when compensation is adequate cannot be overemphasized; it is germane to policy formulation and sound compensation valuation practice. Wyman (2007) identified a two scenario - subjective and objective compensation situation. The proponents of subjective compensation valuation view the value of subject property as the value that the takee assigns to her property which in most cases may be more than the its market value or the amount that it would cost to replace it, or something entirely different (i.e. personal assessment of losses). In order to make for objective compensation value, a takee would receive the compensation based on what makes him to enjoy things that society commonly value to the same extent that she enjoyed these things before the taking (i.e judgment by outsiders). Aghalino (2005) however have queried the justification of excluding the victim of oil pollution from what is fair and adequate compensation to him.

Bell and Parchomovsky (2006) have observed that the position of law limiting compensation to market value is premised on the impracticability of measuring the true subjective value of property based on its owner's assessment. Because subjective value is difficult to verify by a third party, courts have always relied on market value as a measure of fair compensation value. Since there is always controversy on adoption of subjective or objective approach to compensation to please all parties, the authors proposed that the government when expropriating private interests in landed properties could rely on self-

assessed value of the property owners by asking the owners to first submit their property values to it prior the takings. The government could then have the choice to continue with the takings by paying the self-assessed value of the property as compensation or rescind the decision, however, with two provisos; one, that the local housing price index would thereafter be adjusted based on the subjective self-assessed value; and two, owner's property tax liability would be adjusted based on the value acclaimed. Although this proposal seems a piece of solution, it will be difficult to apply this in a country where there is a weak tax system. Another question that readily comes to mind is who will be responsible for professional fee that goes with property valuation?

Unlike compensation for compulsory acquisition of land where land are taken permanently, claimants may only suffer temporary use of their land in oil spill situation; thus, the period considered in valuation assessment largely depend upon the estimated recovery period and the quality of clean-up works undertaken.

3 Methodology

This study was conducted on Niger Delta Region, the oil rich region of Nigeria. It is a survey research and the data were collected via questionnaire administered on residents of five oil producing communities in the Niger Delta. A multistage sampling method was adopted to select five states out of the nine states of Niger Delta. At the second stage, a Local Government Area (LGA) was selected in each of the selected states and subsequently in the third stage; a community where oil production is evident was selected in each of the selected LGA. Consequently Abereke in Ilaje LGA in Ondo state, Oben in Orhiomwon LGA in Edo state, Uzere in Isoko South LGA of Delta state, Awiyama in Ijaw LGA of Bayelsa state and Kaani Babbe in Khana LGA of Rivers states were selected. Oil producing communities in Niger Delta exhibits similar characteristics and experiences in terms of oil spill and its consequences on natural environment as well as human wellbeing (Eregha and Irughe, 2009),

thus, the selection were based on convenience and ease of data collection especially with the threat of abduction in the region.

Following Yamane (1967) formula the sample size for the study population was determined as shown in Table 1, and respondents were randomly selected in each of the communities.

Table 1. Schedule of Sample Size Estimates, questionnaire administration and response rate

S/N	State	Community	Estimated Population	Sample Size	Questionnaire Retrieved and found useful for analysis
1	Bayelsa	Awiamama	17,500	392	247 (63.99)
2	Delta	Uzere	15,000	390	241 (61.95)
3	Edo	Oben	13,000	389	217 (55.64)
4	Ondo	Abereke	10,500	386	184 (48.04)
5	Rivers	KanniBabbe	9,000	383	236 (60.20)
Total			65,000	1,940	1125 (57.99)

Sample Size for $\pm 5\%$, Precision Levels where Confidence Level is 95% and $P = .5$.

Source: Author's Sample Size Estimation

Consequently, a total of 1,940 respondents were served with questionnaire in all the selected oil producing communities out of which 57.99% were retrieved and found suitable for analysis. Analyses of data collected were carried out Weighted Mean Score (WMS), Kruskal Wallis (H) and T test.

4 Results and Discussion

Background information on respondents

The background information of the sampled residents shows that 97.33 % of them are above 20 years of age. 62.40 % are of male gender while 35.38 % are females, and 2.22 missing figures. In all 92.89 % of the surveyed respondents have lived in their communities more than 20 years. 5.51 % have lived in the region for between 11-20 years, while the remaining 1.6 % is below 11 years of stay in the communities. The surveyed respondents are engaged in different

occupation or trade. Although some are into more than one trade but their major occupation was reckoned with in this analysis. Farming and fishing with 36.18 % and 44.27 % respectively are major occupation of the people; 2.49 % are civil servants, 13.87 % engaged in trading activities, 1.24 % are retiree whose sole source of income is pension. The remaining 1.96 % engaged in other activities. Since the sampled population consists of adults who have lived for considerable long years in their respective communities, data obtained from them were considered adequate to achieve the purpose of the study

NDR Residents' Assessment of Adequacy of Compensation for Oil Spill Damages

The question of compensation for oil spill damage remained unanswered as far as the NDR residents are concerned. This far cry has always being and the situation remains unchanged over the years of oil exploration in the region. The pulses of the residents were felt by requesting them to rate their level of satisfaction with the compensation received for damages to their private interests. The table 2 presents their responses.

Table 2. NDR Residents' Assessment of Adequacy of Compensation for Oil Spill Damages

Adequacy of Compensation	Abereke	Oben	Uzere	Kaani Babbe	Awiamia	Total
Very satisfactory	12(4.86)	25(10.37)	6(2.76)	17(9.24)	21(8.90)	81(7.20)
Satisfactory	46(18.62)	13(5.39)	14(6.45)	7(3.80)	16(6.78)	96(8.53)
Not Sure	12(4.86)	11(4.56)	5(2.30)	15(8.15)	12(5.08)	55(4.89)
Unsatisfactory	81(32.79)	109(45.23)	72(33.18)	84(45.65)	65(27.54)	411(36.53)
Very Unsatisfactory	96(38.87)	83(34.44)	120(55.30)	61(33.15)	122(51.69)	482(42.84)
Mean Score	2.18	2.12	1.68	2.10	1.94	2.01

Percentages of frequencies are shown in parenthesis ()

From table 2, the level of satisfaction expressed by the communities generally falls below 3.00 – which is taken as acceptable level. Abereke

community has a mean score of 2.18, Oben has 2.12, Uzere has 1.68, Kaani Babbe has 2.10 and Awiyama has 2.01. The overall mean score for the communities combined is 2.01. An overview of the results suggests that there is generally an expression of displeasure over compensation paid for oil spill impaired interests in NDR.

Hypothesis 1

In order to test if there was significant difference in the satisfaction level across the selected communities, a Kruskal Wallis (H) test was conducted and the results are presented in table 3

Table 3. Kruskal Wallis Test for Adequacy of Compensation Across the selected oil producing communities in Niger Delta

NDR Communities		N	Mean Rank
Compensation Adequacy	Abereke	247	602.52
	Oben	241	602.68
	Uzere	217	477.34
	Kaani Babbe	184	607.39
	Awiyama	236	525.27
	Total	1125	
Test Statistics^{a,b}			
	Compensation Adequacy		
Chi-square	33.221		
Df	4		
Asymp. Sig.	.000		

a. Kruskal Wallis Test

b. Grouping Variable: NDR Communities

From the results in Table 3, Kruskal Wallis test shows a significant difference; Chi-Square (χ^2) value is 33.221 and Asymptotic Significance (p-value) of 0.000 is less than 0.05; thus, we reject the null hypothesis (H_0) and accept the alternative hypothesis.

Comparison of Expected and Actual Payment Received as Compensation for Oil Spill Damage

In order to test investigate if there is significant difference between expected and actual compensation paid to residents of selected communities whose have suffered oil spill damage in the time past, a Paired T-test was conducted. The Table 4 and 5 present the Paired Samples Statistics and Paired Samples Test for the selected oil producing communities.

Table 4. Paired Samples Statistics

		mean	n	Std. Deviation	Std. Error Mean	t	df	Sig. (2 tailed)
Abereke	ECP	115599.7882	85	1.50678E5	16343.35515	5.718	84	.000
	ACR	43558.2353	85	42182.23281	4575.30554			
Oben	ECP	126668.8785	107	1.54680E5	14953.50796	7.484	106	.000
	ACR	51455.6355	107	66052.10069	6385.49759			
Uzere	ECP	37585.7955	88	33236.94018	3543.06973	7.017	87	.000
	ACR	25509.2500	88	20929.68350	2231.11176			
Kaani Babbe	ECP	59931.4894	94	52128.89911	5376.68541	5.967	93	.000
	ACR	37683.9255	94	25944.21800	2675.94177			
Awيامa	ECP	95460.4870	115	1.41197E5	13166.64832	5.426	114	.000
	ACR	45363.0435	115	51374.52654	4790.69930			

ECP = Expected Compensation Payment ACR = Actual Compensation Received

The results of T-test as shown in Table 4 indicate that there is significant difference between the expected and actual compensation paid in the each of the selected communities in NDR

Abereke Community: There was a significant difference in the scores for expected compensation sum ($M = 115599.7882$, $SD = 1.50678E5$) and the actual sum paid as compensation ($M = 43558.2353$, $SD = 42182.23281$); $t(84) = 5.718$, $p = 0.000$. These results explain why the oil spill victims are dissatisfied with the compensation paid for impairment of their interests.

Oben Community: The paired t-test for Oben community indicate that there was significant difference between the expected compensation ($M = 126668.8785$, $SD = 1.54680E5$) and actual sum received ($M = 51455.6355$,

SD = 66052.10069) for oil spill damage compensation; $t(106) = 7.484$, $p = 0.000$.

Uzere Community: From Table 27 and 28, the paired t-test for Uzere community showed that there was significant difference between the expected compensation ($M = 37585.7955$, $SD = 33236.94018$) and actual sum received ($M = 25509.2500$, $SD = 20929.68350$) for oil spill damage compensation; $t(87) = 7.017$, $p = 0.000$.

Kaani Babbe Community: A paired t-test conducted on the Kaani Babbe showed that there is significant difference in the expected compensation ($M = 59931.4894$, $SD = 33236.94018$) and actual sum received ($M = 37683.9255$, $SD = 20929.68350$) for oil spill damage compensation; $t(93) = 5.967$, $p = 0.000$. These results suggest that compensation paid to oil spill victims/claimants grossly falls short of the expected payment thereby establishing basis for their dissatisfaction with compensation sum.

Awiana Community: A paired t-test conducted on the Awiana community revealed that there is significant difference between the sum expected ($M = 95460.4870$, $SD = 1.41197E5$) and actual amount received ($M = 45363.0435$, $SD = 51374.52654$) for oil spill damage as compensation; $t(93) = 5.967$, $p = 0.000$.

Conclusion

This study has reiterated the view of private compensation claimants for oil pollution damage in Niger Delta, Nigeria. The much ado over inadequate compensation in the region is as old as 1958 when oil was first discovered in commercial quantity there. Probably, the persistence of this cry and bloody crisis incessantly experienced in the region is connected to disinclination of successive governments and administrations to confront the problem headlong. As much as many of the people in the region are dependent on the land and environment as their source of income and livelihood, the interest of people cannot be waived aside. It is therefore recommended that the government should

partner with all stake holders to find lasting solution to oil spill in the Niger Delta. Since the Buhari led government is considering total clean-up of the region, the process must not be politicized, but taken with all sincerity required, carrying all stakeholders along. As much as the mess on ground needs to be cleared, so also the pending compensation needs to be paid without delay. The Estate Surveyors and Valuers should determine the value of impaired interests based on best practices fashioned after international standards.

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