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Spatial Analysis of Factors Contributing to Community Conflicts in Rivers State, Nigeria

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ABSTRACT:- Conflicts are global unbidden phenomena which pose serious challenges to community development. Factors contributing to the occurrence differ in different geographical setting; however, there are few studies that dig deep into the factors that influence community conflict occurrence. Thus, the present study examined the spatial analysis of the contributing factors that influence the occurrence of community conflict in Rivers State, Nigeria. A total of 2425 copies of questionnaire were administered using a random sampling technique. Descriptive in terms of frequency and percentage were used for the analysis. Principal component analysis (PCA) was carried out to detect the most important factors causing community conflict in Rivers State while Chi square was used to determine the significant variation in the factors among the conflict ridden communities. Findings revealed that more than 75% of the respondents have witnessed community conflict in their respective communities at least three times. Principal components analysis revealed that chieftaincy tussle, compensation payment pattern, unemployment of the indigene, environmental degradation and resource control the basic factors causing community conflicts in Rivers State. Significant difference existed in the level of destruction in houses (X^2 = 33.771; $p<0.05$); schools (X^2 =203.938; $p<0.05$) and electricity supply (X^2 =199.884; $p<0.05$). The study concluded that the factors leading to community conflict in Rivers State are mostly based on individual community and it is recommended that both federal and state governments should be prompt in decision-making regarding the issues landownership/boundary, chieftaincy and compensation patterns to ensure quick community development in the affected communities.

Keywords: Community conflict, Factors, Landownership/boundary disputes, Chieftaincy tussle and compensation patterns, Community development

I. INTRODUCTION

Communities exist everywhere in the environment be it urban or rural, however the community spirit is more consequential and enduring in the rural areas (Sommers, 2014). Communities have multi- stranded relationships, which can bring about obstructing or facilitating development (Gupta et al., 2003). Through the communities, members are able to benefit and enjoy definite social living that satisfies their basic human needs and fulfil important functions, and this can be measured.

In every society, there are bound to be differences in opinions on all important matters and these differences could be due to personal or collective reasons. When oppositions among individuals, groups, races or societies become apprehensive, the opponents and their activities are identified as destructive and having disassociated relationship, it becomes conflict. Flores (2004) viewed that conflict could be termed as fight over needs and entitlements to rare state of authority and assets, in which the goal of the rivals is to neutralize, hurt or remove enemies. It is an intensified rivalry among different parties each with the objectives to gain advantages of kind, power, resources, and need, especially if it is over a set of jointly incompatible desires (Ikelegbe, 2005). Invariably, it can be ascertained that most conflicts are products of economic struggle for resource exploration, exploitation and governance (Amodu and Sobowale, 2011). It is a conflict among groups all striving for something of which the supply is insufficient to gratify all the contenders (Ikelegbe, 2005). Ongori (2009) explained that conflicting issues are always visible practices in every human relationship and a phenomenon that is faced at all levels. West Africa Network for Peace-building (WANEP) (2001) defined conflicts as divergent views, objectives and desires being pursued by people in a definite communal location. Conflict situation appears with diverse frequencies in people's daily, private and public lives. These conflicts may be on different scales and occur within and among groups, communities which may be caused by economic, religious or ethnic differences. Conflict however, is a known and expected outcome of human interaction (Amodu and Sobowale,

2011), imperatively it is a general incidence in human relationships. Conflicts are spices of life in every community and are in most cases, seen to be healthy spring-board for developmental process (Iheriohamma, 2003).

Paul (2007) reported that conflict is the hub of human existence and evolution. The strength in human beings has always posed a threat in the history of human existence. This has manifested in the several incidence of fights over friends, resources, region, and so on. Indeed, human history is largely that of conflict and competition. Most states as we know them came into existence through violent struggle, colonization, conquest, and wars of independence (Ndlvou-Gatsheni, 2011). There is, therefore a consensus on the unavoidability of conflicting relationship among humans (Okoh and Ewhariemen, 2001). Conflicts are generally about something where the contenders believe they have mutually incompatible goals (Akpabio and Ukpong, 2006). Dokun (2005) asserted that conflict is a visible sign of human energy and often, the result of competitive striving for the same goals, rights and resources. Conflicts are inherent in human associations and are all around us (United States Institute of Peace (USIP), 2007). However, this does not suggest that every social relationship is entirely or partly conflicting all the time. Likewise, conflicting relationships are expressed with different degree of hostility, disequilibrium or violence. However, conflict destroys social network of the community whenever it involves the use of extreme physical force which may lead to civil chaos.

Alfred (2009) reported that conflicts caused by alterations in needs, philosophies, orientation and swift affinities of the concerned persons are seen at social and economic levels of human races. Whenever conflict occurs, it gives room for violent disturbance which polarize elements of the society, close doors to resourceful problem-solving and generates massive humanitarian problems, thus affecting the development of the society. Although, Fahey et al. (2005) reveal that non-aggressive conflicts are important in healthy societies, because it breeds new ideas, fresh thoughts and are source of inventions. According to them, governments, individuals or communities lacking features of conflict would have less drive to make headway toward progressive social, economic and political transformation. Furthermore from historical incidences, non-aggressive battle has always assumed the avenue for the marginalized to express their circumstance and effort toward creating changes in domestic policies (Fahey *et al*, 2005).

Community conflicts are global phenomena because they occur in almost every part of the world, especially within and among countries that had at one time or the other experienced colonialism or imperialism (Alfred, 2009). There are various types of community conflict which might have been induced by religion, ethnicity, politics and inequality. In other words, community conflicts emanates from different pockets of past/present disagreements. Community conflicts disrupt normal channels of co-operations and have varying degrees of impact on the development of the affected areas. As perceived by Afegbua (2010), the occurrence of community conflicts in human societies is an unbidden phenomenon; hence ill-managed conflicts pose serious challenges to development.

The vast continent of Africa with diverse culture and people has been facing increasing number of fierce conflicts; causing pains and placing much pressure on the environment (Gyabaah, 2006; Afegbua, 2010). Similarly, several African communities, ethnic and religious groups have experienced dangerous scenes of continuous dysfunctional conflicts occurring among them (Asiyanbola, 2007). Furthermore, Asiyanbola (2007) noted that ethnicity is a mobilizing agent because of the close linkage between conflict and ethnicity. Conflict arising from ethnic confrontation has resulted to massive waste of lives and a major component of hardship and a discouragement to human security and sustainable development. In addition, Salawu (2010) submitted that forty per cent of conflicts caused by both ethnicity and religion were experienced in Nigerian's fourth Republic. Asiyanbola (2007) affirmed that Nigeria had witnessed many fierce communal conflicts with old ones gaining increasing influence. An instance is the communal clashes between the Fulani herdsmen and Tiv farmers along the Benue-Nassarawa boundary (Beeg, 2011). Ubi (2001), Imobighe (2003) and Omotayo (2005) also highlighted some incidences of community conflicts in recent times and these included Ife-Modakeke in Osun State; Tiv-Jukun in Wukari, Taraba State; Aguleri-Umuleri in Anambra State and so on.

Several works in community conflict have been neglecting the various factors that may lead to community conflict in various geographic settings. Generally, the factors of community conflicts are likened to political, religious, land ownership interests, inadequacy and inconsistent oil pollution related compensations, etc. These have in one way or the other denied these communities a peaceful atmosphere favourable for sustainable community development. Studies on conflict especially in Nigeria has been concentrated to assessment of the occurrence of communal clashes (Ubi, 2001; Imobighe, 2003; Omotayo, 2005; Beeg, 2011). In addition, there are studies on the impacts of community conflict on socio-economy (Arokoyu and Ochulor, 2016a) and spatial pattern of community conflict and its implication on rural development (Arokoyu and Ochulor, 2016b). The present study is examining the spatial analysis of factors inducing community conflict, Nigeria; with a view to focussing at the dominating factors among the conflict ridden communities in Rivers State, Nigeria

II. MATERIALS AND METHODS

The study was carried out in Rivers State, Nigeria. Rivers State falls on latitudes between 4^o 30'N and 5^o 40'N and longitudes between 6^o 25'E and 7^o 33'E (Figure 1). This study involves reconnaissance survey which provided the list of inter and intra community conflict in Rivers State (Figure 1). Rivers State bounded on the south by the Atlantic Ocean, west by Bayelsa and Delta States, north by Imo, Abia and Anambra States and east by Akwa Ibom State. Rivers State is found in the sub-equatorial region. It has a tropical climate with a mean ready temperature of 30^0C a relative humidity of 80% - 100%, and a mean yearly rainfall of about 2,300mm. The area is also characterized by heavy rainfall from April to October ranging from 2000mm to 2500mm. Rivers State is underlain by the Coastal Plain sands having its place from the Pleistocenic Formation (Nwakoala and Warmate, 2014). Rivers State is made up of both upland and riverine areas. The topography in the uplands ranges between 15 and 40m above the sea level while the mean elevation of about 15m is found in the riverine areas. Tropical rainforest is found in the inland part of Rivers State and mangrove swamps towards the coast the Atlantic Ocean. The vegetation is nourished with high rainfall and high temperature, which provide favourable condition for the growth of a varieties of tall and big trees like mahogany, Obeche, Afara and abundance of oil palm trees and several other species of economically valuable plants such as raffia palms, Abura, ferns and grasses (Eludoyin et al, 2013). Drainage of the study area is poor because of the presence of many surface water and heavy rainfall between 2000mm and 2400mm (Mmom and Fred-Nwagwu, 2013). The main drainage pattern in Rivers State is largely controlled by the Bonny River, its tributaries and creeks. However, Bonny River, New Calabar River, creeks and streams drain River State; all enter into the Atlantic Ocean through estuaries (The Niger Delta Budget Monitoring Group (NDEBUMOG), 2009). Freshwater loams and sandy loams, fluvial marine sediments and mangrove swamp alluvial soils make up the three major groups of soil in Rivers State (NDEBUMOG, 2009). Rivers State with a population of about 5,185,400 people occupies a landmass of 11,077 sq. km (National Population Commission, 2006). There are varieties of ethnic groups being found in Rivers State and these include Okrika, Ikwerre, Engenni, Ekpeye, Kalabari, Abua, Ogoni and Andoni. The major type of profession among the people of Rivers State is farming. In addition, fishing is another occupation widely practiced in the riverine areas of the state.

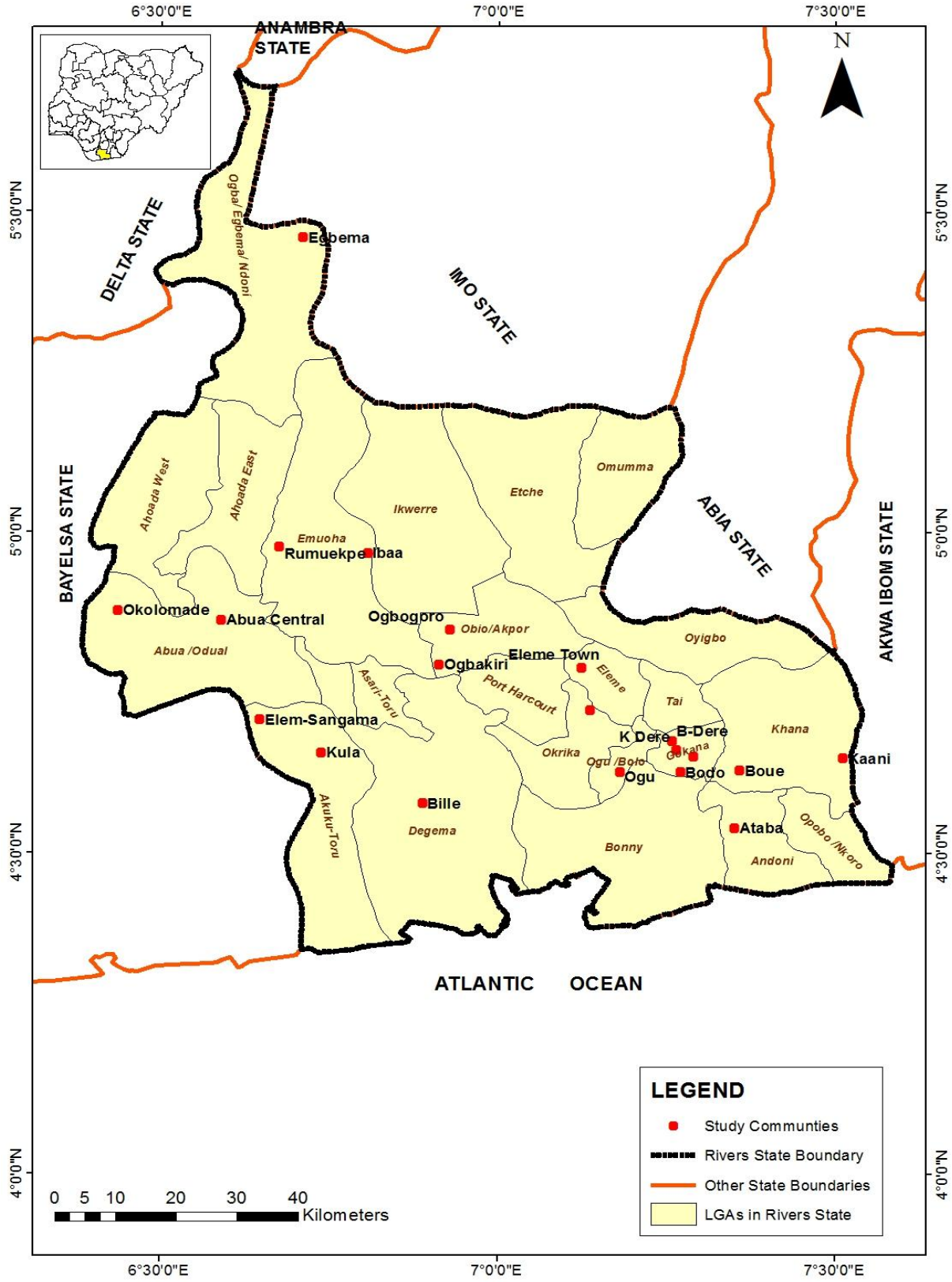

Figure 1: Rivers State showing the Study Locations

Both the primary and secondary data were collected for the study. The primary data collection relied on the use of copies of a structured pre-tested questionnaire. The questionnaire was administered on household heads in the selected communities. Interviews were also conducted for the CDC Chairman to ascertain the level of the impact of conflict on the development within the communities. Secondary data sources used in the study

included but not limited to; the National Population Commission (NPC) Census Reports of 1991 and 2006. The population data most especially the 1991 data projected to 2015. The projection becomes necessary because it is only in the 1991 household census that government captured household size, whereas such information on household size was not available in the 2006 census. The projected data assisted in the appropriate selection of sample size for the questionnaire administration. A total of forty communities were reported to have experienced conflict between 1990 and 2015. However, 50% of these communities were selected for the study using simple random sampling technique. This sampling technique according to Oyegun (2003) involves lottery method in which the serial numbers of elements in the sampling frame are written on pieces of paper. The papers were squeezed and collectively put in a container from which selection of the communities used for the study was made.

Questionnaire was the instrument administered to the household heads of the selected communities using random sampling. Random sampling is a sampling method whereby every individual has equal opportunity of being selected as respondent for the questionnaire administration (Oyegun, 2003). Stratified sampling was used to select the sampled houses in each community. This was done by listing and numbering the houses. The houses numbered in odd numbers were taken and regarded as the sampled houses. Number of households was thereafter counted in each sampled house and random sampling was used to select the total sampled population used for questionnaire administration.

Total population of the study area was 274,675 with population census of 1991 (National Population Commission (NPC), 1992). This population was projected for the selected communities based on the national growth rate of 2.8% (National Bureau of Statistics (NBS), 2012) was 434,485. Thus, the total estimated household population was 77,761 persons using an average household size of 6 (NBS, 2012). From the total household population of each community, 4.0 % was taken as the sample size and the total sample size used for the study was 2977 households. This proportion of the entire households was chosen using convenience sampling technique. A convenience sample is a non-probability sample (Saunder et al., 2012) which can prevent large budget, time and resources that may allow for creation of a large randomized sample (Scout, 2016). A total number of 2425 copies of questionnaire were retrieved and were used for the data analysis for the study.

Table 1: Study Population and Sample Size

Community	Population 1991	2013 Projected Population Using (2.8%) Growth Rate	Number of Household	4% of Household Population	Administered Questionnaire	Retrieved Questionnaire	Percentage (%)
Eleme Town	9352	17,169	3,117	114	114	112	98.2
Rumuekpe	7,751	14,230	2,583	104	104	98	94.2
Ogbakiri	19,668	36,108	6,555	240	240	180	75.0
B-Dere	11,734	21,542	3,991	143	143	133	93.0
K- Dere	9518	17,474	3,172	116	116	114	98.3
Kula	8245	15,136	2,748	120	120	102	85.0
Ataba	9576	17,580	3,192	117	117	114	97.4
Ogbogoro	10,193	18,713	3,397	124	124	119	96.0
Boue	6546	12,017	2,182	90	90	86	95.6
Ogu	22,559	41,416	7,519	276	276	194	70.3
Okolomade	1982	3,638	661	34	34	31	91.2
Bille	10,743	19,723	3,581	131	131	124	94.7
Egbema	7859	14,428	2,619	106	106	99	93.4
Okrika Town	43451	79,950	13,325	533	114	113	99.1
Mogho	9387	17,233	3,129	114	533	309	58.0
Bodo	21642	39,732	7,213	264	264	190	72.0
Elem-Sangama	784	1,439	261	19	19	13	68.4
Ibaa	14851	27,264	4,941	181	181	153	84.5
Abua	7931	14,560	2,643	107	107	99	92.5

Central							
Kaani	2796	5,133	932	44	44	42	95.5
Total		434,485	77,761	2977	2977	2425	81.5

Source: National Population Commission, 1991

The study employed the use of both descriptive and inferential statistics to analyze the data obtained from the survey. Descriptive statistics involved the use of percentages and frequency. Inferential statistics used were Chi-square test and principal component analysis. Chi-square was used to test the significant variation in the factors that cause community conflicts among the selected communities. Chi-square was chosen because the data being considered for this study were in the form of frequencies and discrete categories (Griffiths et al., 2000; Adesoye, 2011). Principal component analysis (PCA) was carried out to determine the main significant factors that caused community conflicts in Rivers State. Component loadings (correlation coefficients) and the variances (eigenvalues) for the factors were computed. The ordinary component matrix of the factors causing community conflicts with eigenvalues ≥1 (Eni et al., 2011). From each extracted component, variables with coefficients≥ ±0.70 were selected and considered significant (Aper, 2006; Eni et al; 2011). Principal components are considered useful if their cumulative percentage of variance approached 80% (Li et al., 2008). In addition, the scores of rotated component loadings (correlation coefficients) from the PCA output were determined using Varimax rotation (variance maximization) (Eni et al., 2011). The data analyses for the study were carried out using SPSS 20.0 version. Findings were presented in tables and charts.

III. RESULTS AND DISCUSSIONS

Socio-Demographic Characteristics of Respondents

The analysis on socio-economic characteristics of respondents is presented in Table 1. The age distribution shows that 10.0%, 43.8%, 28.2% and 18.0% of respondents were within the 20-29 years, 30-49 years, 50-65 years and above 65years respectively. The analysis shows that 56.5% of total respondents were males and 43.5% were females. The analysis on marital status shows that 36.1% were married, 26.7% widowed, 16.5% separated, 13.9% divorced, while 6.8% are single. The household size of 19.3% of total respondents had 2-5 persons, 43.0% had 6-8 persons, 30.9% had 9-11 persons while 6.1% had 12-15 persons and 0.7% had 16 persons and above. Furthermore, 18.8% of respondents had monthly income of ₦20, 000 and below, 27.6% between ₦21, 000 and ₦40, 000, 18.6% between ₦41, 000 and 60,000 while 23% had between ₦61, 000 and ₦80, 000 and 11.4% had ₦80, 000.

Table 1: Socio-economic characteristics of respondents

Age (Years)	**Frequency**	**Percentage (%)**
20-29	243	10.0
30-49	1061	43.8
50-65	684	28.2
65 and above	437	18.0
Total	2425	100.0
Gender	**Frequency**	**Percentage (%)**
Male	1369	56.5
Female	1056	43.5
Total	2425	100.0
Marital Status	**Frequency**	**Percentage (%)**
Single	164	6.8
Married	876	36.1
Divorced	338	13.9
Widowed	648	26.7
Separated	399	16.5
Total	2425	100
Household Size	**Frequency**	**Percentage (%)**
2-5 persons	468	19.3
6-8 persons	1043	43.0
9-11 persons	749	30.9
12-15 persons	147	6.1
16 and persons	18	0.7
Total	2425	100

Perception on Factors influencing Community Conflict

The factors responsible for conflict in the study area are shown in Table 2 whereby 30.9% of respondents informed that the conflict was caused by land ownership/boundary dispute, 24.8% agreed on chieftaincy tussle while 22.1% agreed on lack of compensation. However, 8.0% agreed on political parties opposition, 4.8% agreed on unemployment, 2.9% agreed on resource control while 4.6% and 1.8% agreed that community conflict was due to environmental degradation and lack of public facilities respectively. From the analysis, it is deduced through people's perception that land ownership/boundary dispute, chieftaincy tussle and compensation were the major factors responsible for community conflict in Rivers State.

Factors influencing community conflict on community basis in Table 3 shows that in Okrika Town, 31.4% agreed that land ownership /boundary dispute was the cause of community conflict while 22.3%, 27.5% and 8.4% agreed chieftaincy tussle, compensation payment pattern and environmental degradation respectively. The prominent factors responsible for community conflict in Boue were land ownership/boundary dispute, chieftaincy tussle, compensation payment pattern and political party opposition as 29.1%, 18.6%, 14.0% and 11.6% of respondents respectively attested. In Ogu, 40.7% of respondents agreed that land ownership/ boundary dispute was the cause of the community conflict and chieftaincy tussle was agreed upon by 29.4% of the respondents. In Oklomade, 35.5% agreed on chieftaincy tussle, 22.6% agreed on land ownership/ boundary dispute, and 12.9% of the respondents agreed on unemployment of the indigene. In Bille, analysis reveals that compensation payment pattern and chieftaincy tussle and land ownership/ boundary dispute were the factors causing community conflict. In Bille community, 43.5% agreed that compensation payment pattern was the cause of community conflict, 29.8% agreed on chieftaincy tussle and 14.5% agreed on land ownership/ boundary dispute. It is revealed that the order of prominence of the factors responsible for community conflict in Rumuekpe, Mogho and Ibaa was land ownership/ boundary dispute, chieftaincy tussle and compensation payment pattern. In Rumekpe community, 9.2% of respondents agreed on environmental degradation.

In B-Dere, K- Dere, Egbema, Bodo, Eleme Town and Kaani, the order of prominence of factors responsible for community conflict was land ownership/ boundary dispute, compensation payment pattern and chieftaincy tussle. Environmental degradation was agreed by 9.5% and 6.2% of respondents in Bodo and Eleme Town respectively. Ogbogoro and Abua Central had similar order of prominence of factors responsible for community conflict which were chieftaincy tussle, compensation payment pattern and land ownership/ boundary dispute while in Ogbakiri and Kula, chieftaincy tussle was the most prominent factor; followed by land ownership/ boundary dispute; and followed by compensation payment pattern. Generally, lack of public facilities had the least prominence as the factors causing community conflict in the study area except in Boue, Ogu, Mogho, Ibaa, Kaani, Ataba and Ogbogoro.

Table 2: Factors affecting community conflict in the study area

Factors	Frequency	Percentage (%)
Land ownership/Boundary dispute	750	30.9
Chieftaincy tussle	602	24.8
Compensation payment pattern	536	22.1
Political party opposition	194	8.0
Unemployment of the indigene	117	4.8
Resource control	71	2.9
Environmental degradation	111	4.6
Lack of public facilities	44	1.8
Total	2425	100.0

Table 3: Factors affecting community conflict among the selected communities

Communities	Factors								Total
	Land ownership/Boundary dispute	Chieftaincy tussle	Compensation payment pattern	Political Party Opposition	Unemployment of the indigene	Resource control	Environmental degradation	Lack of public facilities	
Okirika Town	97	69	85	8	10	11	26	3	309
	31.4%	22.3%	27.5%	2.6%	3.2%	3.6%	8.4%	1.0%	100.0%
Boue	25	16	12	10	7	8	3	5	86
	29.1%	18.6%	14.0%	11.6%	8.1%	9.3%	3.5%	5.8%	100.0%
Ogu	79	57	28	6	10	3	7	4	194
	40.7%	29.4%	14.4%	3.1%	5.2%	1.5%	3.6%	2.1%	100.0%
Oklomade	7	11	3	2	4	1	2	1	31
	22.6%	35.5%	9.7%	6.5%	12.9%	3.2%	6.5%	3.2%	100.0%
Bille	18	37	54	3	2	5	4	1	124
	14.5%	29.8%	43.5%	2.4%	1.6%	4.0%	3.2%	0.8%	100.0%
Egbema	38	19	30	1	3	2	5	1	99
	38.4%	19.2%	30.3%	1.0%	3.0%	2.0%	5.1%	1.0%	100.0%
Mogho	39	28	23	8	5	3	3	4	113
	34.5%	24.8%	20.4%	7.1%	4.4%	2.7%	2.7%	3.5%	100.0%
Bodo	54	27	38	36	10	4	18	3	190
	28.4%	14.2%	20.0%	18.9%	5.3%	2.1%	9.5%	1.6%	100.0%
Elem Sangama	4	3	5	0	0	0	1	0	13
	30.8%	23.1%	38.5%	0.0%	0.0%	0.0%	7.7%	0.0%	100.0%
Ibaa	51	37	30	19	7	2	4	3	153
	33.3%	24.2%	19.6%	12.4%	4.6%	1.3%	2.6%	2.0%	100.0%
Abua Central	24	32	28	3	5	2	4	1	99
	24.2%	32.3%	28.3%	3.0%	5.1%	2.0%	4.0%	1.0%	100.0%
ElemeTown	44	11	32	5	4	6	7	3	112
	39.3%	9.8%	28.6%	4.5%	3.6%	5.4%	6.2%	2.7%	100.0%
Kaani	18	4	5	9	3	0	2	1	42
	42.9%	9.5%	11.9%	21.4%	7.1%	0.0%	4.8%	2.4%	100.0%
Rumuekpe	29	25	21	8	3	1	9	2	98
	29.6%	25.5%	21.4%	8.2%	3.1%	1.0%	9.2%	2.0%	100.0%
Ogbakiri	53	78	26	13	4	3	2	1	180
	29.4%	43.3%	14.4%	7.2%	2.2%	1.7%	1.1%	0.6%	100.0%
B-Dere	43	16	24	31	9	3	5	2	133
	32.3%	12.0%	18.0%	23.3%	6.8%	2.3%	3.8%	1.5%	100.0%
K-Dere	37	14	21	25	8	3	4	2	114

Table 4 shows the chi square analysis in the factors that cause communal conflict in the study area. The factors included land ownership/boundary dispute, chieftaincy tussle, compensation of payment pattern, political parties' opposition, unemployment of the indigene, resource control, environmental degradation, and lack public facility. The analyses showed that there was significant differences land ownership/boundary dispute (χ^2 =2340.4; p<0.05); chieftaincy tussle (χ^2 =2081.1; p<0.05); compensation of payment pattern (χ^2 =2652.5; p<0.05); political parties' opposition (χ^2 =2762.7; p<0.05); unemployment of the indigene (χ^2 =2111.3; p<0.05); resource control (χ^2 =2510.2; p<0.05); environmental degradation (χ^2 =2517.1; p<0.05) and lack of public facility (χ^2 =2257.0; p<0.05).

Dominating Factors causing Community Conflict

The ordinary component matrix of PCA shows that three factors causing community conflicts in Rivers State loaded heavily on component 1 and these included compensation payment pattern (0.784); unemployment of the indigene (0.738) and environmental degradation (0.795) (Table 5). This component accounted for 59.16% of the total variance in the factors causing community conflict. On component 2, only one factor, chieftaincy tussle (0.809) loaded heavily and this component accounted for 24.29% of the variation in the data set (Table 5). However, the loadings of rotated components on factors causing community conflicts are presented in Table 6. In component 1, four factors causing community conflicts loaded heavily and these included compensation pattern (0.717); unemployment of the indigene (0.708), resource control (0.741) and environmental degradation (0.731). This component accounted for 54.51% of the total variance. In component 2, only compensation payment pattern (0.808) loaded heavily and the component had 28.94% of the total variance. Based on this result, basic factors that influenced community conflicts in Rivers State between 1990 and 2015 included chieftaincy tussle, compensation pattern; unemployment of the indigene; environmental degradation and resource control.

Table 4: Chi square analysis of the factors causing communal conflict in Rivers State

Infrastructure	Chi Square analysis	Value	df	Asymp. Sig.
Land Ownership/Boundary Dispute	Pearson Chi-Square	2340.383[a]	76	0.003*
	Likelihood Ratio	2178.982	76	.000
	N of Valid Cases	2425		
Chieftaincy tussle	Pearson Chi-Square	2081.075[a]	76	0.001*
	Likelihood Ratio	2047.682	76	.000
	N of Valid Cases	2425		
Compensation of payment pattern	Pearson Chi-Square	2652.543[a]	76	0.002*
	Likelihood Ratio	2545.959	76	.000
	N of Valid Cases	2425		
Political Parties Opposition	Pearson Chi-Square	2762.693[a]	76	0.001*
	Likelihood Ratio	2706.256	76	.000
	N of Valid Cases	2425		
Unemployment of the indigene	Pearson Chi-Square	2111.326[a]	76	0.000*
	Likelihood Ratio	2210.074	76	.000
	N of Valid Cases	2425		
Resource control	Pearson Chi-Square	2510.182[a]	76	0.000*
	Likelihood Ratio	2495.985	76	.000
	N of Valid Cases	2425		
Environmental degradation	Pearson Chi-Square	2517.148[a]	76	0.000*
	Likelihood Ratio	2601.281	76	.000
	N of Valid Cases	2425		
Lack of public facility	Pearson Chi-Square	2257.010[a]	57	0.002*
	Likelihood Ratio	2407.754	57	.000
	N of Valid Cases	2425		

χ^2 is significant at $p<0.05$

Source: Researcher's analysis, 2015

Table 5: Ordinary Component Matrix

Factors	Principal Components	
	1	2
Land Ownership (Boundary)	0.408	0.372
Chieftaincy Tussle	0.181	0.809
Compensation Payment pattern	0.784	-0.023
Politics parties oppositions	0.642	0.340
Unemployment of the indigene	0.738	-0.099
Resource control	0.668	-0.319
Environmental degradation	0.795	-0.033
Lack of Public Facility	0.532	-0.350
Eigen values	3.13	1.143
%Variance	59.16	24.29
Cumulative explanation	59.16	83.45

Factors underlined with eigenvectors (coefficients) ≥ ±0.70 are considered significant.

Table 6: Rotated Component Matrix using Varimax

Factors	Component	
	1	2
Land Ownership (Boundary)	0.207	0.511
Chieftaincy Tussle	-0.186	0.808
Compensation Payment pattern	0.717	0.318
Politics parties oppositions	0.432	0.584
Unemployment of the indigene	0.708	0.230
Resource control	0.741	0.002
Environmental degradation	0.731	0.314
Lack of Public Facility	0.631	-0.085
Eigenvalues	2.76	1.52
% Variance	54.51	28.94
Cumulative explanation	54.51	83.45

Factors underlined with eigenvectors (coefficients) ≥ ±0.70 are considered significant.

IV. DISCUSSION OF FINDINGS

The dominating factor causing community conflict in Rivers State through the residents' perception included land ownership/boundary dispute (30.9%). Thus, many conflicts can arise as a result of land as a resource. Ichite (2015) reported that land means an important economic asset and a source of livelihoods, and it is also closely linked to the identity, history and culture of communities. Land ownership qualifies a 'host' community to enjoy the benefits accrued from the land (Ochulor, 2006). Although land and natural resource are never the sole cause of confrontations as observed in Bob (2010) cited in Ichite (2015) that land conflicts commonly become violent when linked to wider processes of political exclusion, social discrimination, economic marginalization, and a perception that peaceful action is no longer a viable strategy for change. Other factors are chieftaincy tussle (24.8%) and compensation payment pattern (22.1%). Nyborg *et al*. (2012) noted that conflict is very often the result of the interaction of political, economic and social instability, frequently stemming from bad governance, failed economic policies and inappropriate development programmes which have exacerbated ethnic or religious difference and environmental degradation. However, using PCA, the basic significant factors determining community conflicts in Rivers State were chieftaincy tussle, compensation payment pattern, unemployment of the indigene, environmental degradation and resource control.

Conclusion and Recommendations

The study has revealed the spatial analysis of community conflicts in Rivers State which are caused by chieftaincy tussle, compensation payment pattern, unemployment of the indigene, environmental degradation and resource control has invariably impacted on the development in the affected communities. Based on findings in this study, the study recommended that the dispute on resource control and environmental degradation in the communities in Rivers State should be tactically and legally resolved, there should be adequate policy governing chieftaincy selection in the communities by Rivers State Ministry of Local Government and Chieftaincy Title and the compensation payment pattern by oil and gas companies should be reviewed in a way that will benefit the host communities.

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