



# **Analysis of Military and Public Participation in Disaster Rescue Operations in Ahoada East Local Government Area of Rivers State, Nigeria**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

The study was carried out basically to examine military and public participation in disaster rescue operations in Ahoada East L.G.A of Rivers State, Nigeria. Four objectives alongside one hypothesis were set out for the study. A total of 400 respondents were sampled for the study with the use of the Taro Yamane formula, but on distribution of copies of the questionnaire, only 370 copies were returned completely filled for the study. This was thereafter used in the analysis of the study alongside the Chi-Square analytical tool, which was used for hypothesis testing. The findings of the study revealed that the people partnered with the military in different segments of the study area towards disaster rescue, mostly on security and intelligence gathering. Military and public participation concentrated on disaster rescue operations. These rescue operations seem to have an impact on the people of the area. It is also revealed that the attitude of the Government to disaster rescue operations in the area has been positive and effective. The study has also revealed that statistically there is a significant impact of Military and public participation in disaster rescue

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operations. The study therefore recommended that there is a need for community participation in decision making for disaster management, as this will easily facilitate better communication leading to overall acceptability of the locals with the rescue operations. This positive outcome propagates the need for encouraging a close interaction and partnership between the public and the military. Based on the study outcome a partnership is being built. Such a development would ensure effective disaster rescue operations, monitoring, response recovery and preparedness.

*Keywords: Public; participation; disaster; management; rescue operations.*

## 1. INTRODUCTION

Globally, it is a known fact that all disasters have become very costly, due to enhanced cost with time of disaster related damages to properties and life in addition to quality execution of post disaster mitigation efforts. Irrespective of such unexpected expenditure rebuilding through developmental activities to cater to the needs of ever increasing affected population has become a necessity. A burgeoning increase in population and introduction of new technology in warfare has enhanced destructive capacity of disasters. Presently, there are a growing number of incidences of disaster, natural or manmade, and these have mandated governments to focus on disaster management with the view of reducing occurrence of disasters and there by reduction of economic and social losses [1].

There is a need for an increase in the quality of disaster management services, to help combat the extent and complex nature of disaster, even though such a costly but essential step has become essential. According to Okoli [2], an overwhelming increase in natural and man-made disasters has been occurring since couple of decades all over the earth .Destructive nature of Earthquakes, floods, tsunamis as natural disasters and wars as manmade disasters are well known throughout the world. Okoli, (2) also stated that it is important to know that disasters could make the world bereft of its resources, impede the economic growth and forceful introduction of security measures to the population. Such losses could lead to overall instability and global damages.

According to Red Cross Society, (2011) cited in Austrian Civil-Military Centre [3], past events of disasters have shown that Contingency plans may not foretell occurrence of a future earth mishap (disaster) but they could provide needed guidelines for taking apt management measures. Such plans could help reduce fear and anxiety in the disaster prone population, whenever disaster occurs. In order to manage disasters, first step is

to issue clear blueprints within specific timeframe that could help in properly planning and executing disaster rescue operations.

The common man, different types of businesses, local government administration and execution of routine and developmental works and performance of international institutions are all affected by disasters. OFDA/CRED International Disaster Database, [4], researched over 373 disastrous events. The impact has been enormous, causing severe damage to dwellings& properties, loss of lives in addition to seriously affecting over 303 million people. This statistics was prepared by International Disaster Base EM-DAT in 2010. In the recent past disasters like flash floods, hurricanes, earthquakes, all over the world, have displaced over 40 million people and caused an estimated loss valued at \$109 Billion. Nigeria has also faced the negative impact due to floods (natural hazard) and skirmishes between different tribes, attacks by internal and external terrorist groups and small scale battles with some neighboring countries to establish the superiority in the region. To act in a disciplined manner during occurrence of natural hazards and manmade disasters Nigerian Military has been active continuously, as per the dictates of Government.

In the recent past, as in different parts of the earth, climate change has affected Nigeria due to ir-regular monsoon leading to both floods and droughts. Over ninety-two percent of disasters in different parts of the earth in 2010 have been linked to Climate-Change (OFDA/CRED International Disaster Database, 2011).This negative development has added to overall deceleration of economic growth of Nigeria.

Since 1980, disasters have increased- 100-150 a year. Since onset of new millennium (2000), disasters have increased with high frequency and instability. On an average the number of disasters in a year, presently, reached a figure of 392-400 [5].

When classifying disaster-endangered countries, Nigeria may not count among the significant. Yet, the country has its share of these anomalies [6]. Recently, Nigeria witnessed several disasters; flood, militancy and terrorism that have resulted in loss of lives, properties and collateral damage to GDP.

Aside the military, public participants (individuals, community heads NGOs,) are involved in disaster management. Local-level leadership to mitigate level of disaster events is very important. Public participation and community organization like NGOs will aid in sensitizing vulnerable communities; indigenous rural locals are most affected. This will help in reduction of risk [7].

Training individuals living in vulnerable places about basic evacuation procedures, first aid tips, organized drills to lessen confusion during and after a disaster and other community initiatives is an essential way of ensuring public participation in disaster response. However, the failure of this important initiative is usually poor leadership, political pressures and inordinate communication between administrative departments, disaster management organization and other leaders (chieftains of villages or town leaders). This could prevent a comprehensive Disaster Risk Reduction strategy [8,9,10]. According to Peterside [11], when there is no cooperation and information sharing between vulnerable people and leaders, it could result in poor assessment for Disaster Risk Reduction.

The roles and impact of public and military participation in disaster rescue operations should be studied, but we opine that actual application of the results of this study might face some bottle-necks. Thus, to avoid development of such a scenario there is an urgent need for the comprehensive and systematic evaluation of participatory approaches of the military and local community participation in disaster rescue operations. Major issue during disaster rescue operations is the apparent disconnect between public and the military. This dichotomy has resulted in little contribution of public participants in disaster rescue operations. We believe that if the public have more opportunity, it could improve the disaster resilience of communities.

For the military, their roles during disasters could specifically include search, rescue, debris removal, medical help, clearance of roads, demolition of unsafe structures, building/

providing of temporary shelters and information dissemination among others.

This has necessitated the need for adjustment in strategies to engage both parties (Military and Public). Amidst the increasing rate of disasters, this study therefore, seeks to examine the impact of co-ordinate military and public participation in disaster rescue operations in Ahoada East L.G.A of Rivers State, Nigeria with focus on cult related disasters, which are presently ravaging the area.

### **1.1 Civil-Military Co-ordinate Efforts in Disaster Management and Relief & Rehabilitation Operations: Global Scenario**

Hall and Cular, [12] examined the impact of co-ordinate management and rescue operations/engagements involving civilian experts, the Philippine security forces and the US military during disaster response operations. The study revealed that Philippine disaster framework recognizes the military's role in disaster relief, utilizing approved existing operational mechanisms for accepting international assistance and procedures for military-to-military cooperation in maximizing the success of relief and rehabilitation tasks. The local authorities accord the military a central role in the disaster operations, contrary to notions of it being the 'last resort'. Tasking and coordination proceeded separately along civilian and military norms, with limited interface between the two groups. The army reserve force had greater linkages with civilian participants/ volunteers than did the army regulars, who dealt exclusively with the foreign teams. The US military's activities were confined to search and rescue and to providing critical logistics, which the Philippines participants/ volunteers lacked.

Judy, [10] examined the communicative practices during public engagement initiatives for disaster risk reduction. According to Judy, Practitioners working in the field of disaster risk reduction have witnessed a policy shift at all levels of governance toward increased public participation to build disaster resilience. This study has identified lack of a national DRR policy. The lack of national DRR policy has been found to detract the efforts to build community resilience.

Shabab et al. [13] analysed the role played by Pakistan Armed Forces during various disasters in the past. According to their study, over the years Pakistan Armed Forces have been

participating in disaster related activities. The efforts were primarily directed to relief, rehabilitation and reconstruction activities. Increasingly alarmed by the recent disasters and their involvement, it is realized that greater emphasis should be given to preplanning and preparedness so as to effectively manage disasters when they strike.

According to Col. Raj [14] the primary role of the armed forces relating to the defense of the country against external and internal threats is unambiguous and needs no deliberation. The secondary role of the armed forces in aid to civil authority is a constitutional obligation, although as an instrument of last resort. The armed forces can be called out to aid the civil authorities to meet various contingencies that include maintenance of law and order, maintenance of essential services, focused direct assistance in facing natural calamities, assistance in execution of developmental projects and other types of assistance, which may be sought by civil authority. While operational preparedness for disaster complements preparedness for war, deployment in disaster management also affords greater opportunities to the armed forces in receiving appreciation and acceptance of their significant efforts by the masses, especially in areas affected by terrorism and communal strife. Hence, the armed forces need to enhance operational capacities, gear up their disaster response further and continue to acquit themselves with distinction when called to aid the civil administration.

Hossain, [15] examined the community participation in disaster management; role of social work to enhance participation. According to the study, alternative perspective of disaster management, of which main principle is to incorporate people's opinion and ensure community participation in every stage of policy cycle emerged on the backdrop of dominant approach. They play their role during and post-disaster situation to operate relief work, coordinate the chaotic situation of disaster, and create access to resources for vulnerable population. They also provide services for reducing traumatic situation. Therefore, we need more efficient and trained social workers as the propensity of natural disaster is increasing day by day because of various factors including climate change (Ariyabandu, 2003 cited in Hossain, 2013).

Walker [16] explored the role of the active-duty of military in domestic disaster response, during

Hurricane Katrina. The study focused on determining the effective role of Department of Defense (DOD) and Department of Homeland Security (DHS). The focus was to evaluate properly their role in responding to the disaster, according to the National Response Plan (NRP). Examination of the DOD and DHS response to Hurricane Katrina did not provide sufficient evidence that expanding DOD authority during a major domestic disaster is the right step to take. Although the military does bring unique skills and capabilities to the table, the role of defense support to civil authorities (DSCA) under the NRP helps protect the delicate balance of state sovereignty and federalism. It also helps preserve civil-military relations. As such, it is likely the active-duty military role will remain one of support under a civilian authority during disaster response.

Itodo, [17] examined the civil-military relationship in disaster management in Nigeria with a view to proposing strategies to enhance civil-military cooperation in disaster management, search and rescue operation in Nigeria. From the study, the following results were deduced: the effort of the federal government in enhancing the response of the military to emergency situation is inadequate and needs to be improved or upstaged to higher standard as compared with other countries; the performance of Nigeria armed forces and the civil societies in disaster management whether natural or manmade could have been effective but for lack of specialised equipment, strategic coordination at both tactical and operational level, call up procedures and the limitations of disaster reaction units, signing and facilitating necessary agreements at operation directorates; and the study concluded that both the Nigerian Armed Forces and civil society have not been able to respond effectively to disasters due to the failure of bureaucracy in promoting a clear distinction between military and civilian personnel, and the ability of the latter to adhere to the principles of humanity, neutrality and impartiality.

Wachira and Sinclair [18], examined the role that the public currently plays in emergency flood response in order to identify how public involvement might be better incorporated in flood management. The main objective of the study was the 1997 Red River Flood, the "flood of the century", where some dissatisfaction in disaster management and inadequacies in conflict characterized emergency response efforts have been noticed. The results suggested that

members of the public are the first responders to a flood threat, and play a critical role in reducing the damage by undertaking individual and group activities such as moving furniture to upper floors and participating in neighborhood management and response committees. Their role in provincial and state decisions, such as evacuation, is however, minimal at best. Despite the popular opinion of senior decision-makers, opportunities are identified to involve the public more in both preparation and response through vehicles as simple as a town hall meeting.

**2. METHODOLOGY**

The survey research method was adopted to carry out the study. Attention was more on primary sources of data, which were generated from the field by respondents through the use of questionnaire. The study was carried out in Ahoada East Local Government Area of Rivers State; therefore the participation in the study was confined to people residing in the local Government and some military personnel operating in the area. The study area is made up of four distinct clans with a total of 72 communities. This is shown in Table 1.

Due to the volatile nature of the communities, covering the entire area was difficult, hence purposive sampling method was adopted where two communities in each of the clan were purposively selected making the number of communities to be studied was restricted to eight. This is in Table 2.

**Table 1. Sample clans and number of communities**

Clans	Number of communities
Upata	21
Ako	14
Ehuda	28
Orlukwu	9
Total	72

Source: Researchers field work (2017)

Arising from the above, since the population is large and cannot be studied holistically, Taro Yamane formula was applied to ascertain the sample size for the study. To get a true representative sample of the target population, the Taro Yamane (1967) formula as cited in Ahiakwo [19] formula for sample size determination was used;

$$n = \frac{N}{1 + N (e)^2}$$

Where,

- e = Level of precision (0.05 @ 95% confidence level)
- N = projected Population
- n = Sample size
- 1 = Constant

$$n = \frac{10,829}{1+10,829 (0.05)^2} \quad n= 400$$

**Table 2. Clans, communities and population**

Clan	Sampled communities	Population
Upata	Ihuowo	1112
	Edeoha	2096
Ako	Odimerenyi	1010
	Ihugbogo	961
Ehuda	Igbuobo	2019
	Odemelu	1718
Orlukwu	Odiabidi	1021
	Obumeze	892
<b>Total</b>		<b>10,829</b>

Source: Researchers Field Work, 2017

Therefore, the sample size is 400. For this study, a simple random sampling technique was adopted to select respondents from the study area. In the distribution of the questionnaire, the percentage contribution of each community was used to determine the sample size for each community. This is shown in Table 3.

The study adopted the use of descriptive statistics in the presentation of the results. Chi-Square statistical tool was adopted to test the stated hypothesis for the study.

**3. RESULTS AND DISCUSSION**

**3.1 Socio-Economic/Demographic Characteristics of Respondents**

This section shows the socio-economic and demographic characteristics of respondents in terms of sex distribution, age of respondents, marital status, level of education and occupational status of the respondents. It is also important to state that out of the 400 copies of questionnaire used for the study only 370 of them were returned completely filled and used for the study analysis. This is shown in Table 4.

**Table 3. Sampled communities, population and sample size**

Community	Population	% Population	Sample Size
Ihuowo	1112	10.3	42
Edeoha	2096	19.4	79
Odimerenyi	1010	9.3	37
Ihugbogo	961	8.9	35
Igbuobi	2019	18.6	74
Odemelu	1718	15.9	64
Odiabidi	1021	9.4	38
Obumeze	892	8.2	32
Total	10,829	100	400

Source: Researchers, field Work (2017)

From Table 4, 278 out of 370 represents were male representing 75% of the total respondents while 92 of them are female representing 25% of the total respondents.

On the age of respondents 40 were in the age range of 18-29 years, 280 are in the age range of 30-40 years, 30 respondents are in the age range of 41-50 years, while 20 respondents representing 5% of the total respondents are in the age range of 51-60 years and above. This has revealed that more respondents were polarized in the age range of 30-40 years; the largest group that has participated in the disaster rescue operations study. The marital status shows that 270 of the respondents were married, and 78 single. A total of 14 respondents are divorced while 8 respondents representing (2.2%) are widowed.

The educational status of respondents in the study revealed that 240 respondents representing (65%) of the population have secondary education, 72 respondents representing (19.0%) have acquired primary education while 58 respondents representing (16%) of the total population have acquired tertiary education.

A breakdown of the data on occupation of the respondents revealed that 9.5% of the respondents are farmers, 4.9% of the respondents are salaried workers, 47.8% of the

respondents are artisan/vocational based (the highest respondents), while 140 respondents (37.8%) belonging to Trading/ Commerce category occupy the second highest respondents position of the total population in the study area.

From Table 7 364 (98.4%) of the respondents admitted that they have witnessed some form of disaster in the study area. This implies high level of disaster occurrence in the area.

The study revealed that 160 respondents representing 43.2% of the study population agreed that the disaster they have experienced in the area is mostly flood, 80 respondents representing 21.6% identified seashore erosion as a predominant disaster in the area, 100 respondents representing 27.1% of the respondents agreed that community clashes was the type of disaster they have experienced in the area, cultism accounted for 7.3% of disasters experienced in the area, while fire disaster accounted for 0.8% of total disasters experienced in the area.

Table 9 revealed the extent of participation in disaster management by the respondents in the study area. It is revealed that 219 respondents representing 59.2% of the study population agreed that they have participated at one time or another in disaster management while 151 respondents representing 40.8% of the study population agreed that they have not.

**Table 4. Sex, age and marital status distribution of respondents**

Sex	Age	Marital Status
Male	18-29	Single
Female	30-40	Married
	41-50	Divorced
	51-60	Widowed
Total	Total	Total

Source: Researchers field work (2017)

**Table 5. Educational status of respondents**

<b>Educational qualification of respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Primary	72	19.0
Secondary	240	65.0
Tertiary	58	16.0
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

**Table 6. Occupation distribution of respondents**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Farming	35	9.5
Salary Worker	18	4.9
Artisan/Vocational	177	47.8
Trading/Commerce	140	37.8
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

**Table 7. Knowledge of any form of disaster in the area**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	364	98.4
No	6	1.6
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

**Table 8. Types of disasters experienced in the area**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Flood	160	43.2
Seashore Erosion	80	21.6
Community Clash	100	27.1
Cultism	27	7.3
Fire	3	0.8
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

**Table 9. Participation in disaster management**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	219	59.2
No	151	40.8
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

**Table 10. Roles played in disaster management**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Securing life and property	122	33
Trying to avert the occurrence of disaster	74	20
Medical support	30	8.1
Providing food and drinkable water	100	22.0
Others	44	11.9
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

On the roles played in disaster management in the area, 122 respondents representing 33% of the study population consented that they have played the role of securing lives and properties during a disaster rescue operation as a form of management. 74 respondents representing 20% of the study population consented that they have played the role of trying to avert the occurrence of disaster, 30 respondents representing 8.1% of the study population consented that they have played the role of medical support, 100 respondents representing 22% of the study population consented that they have played the role of providers of food and water while 44 respondents representing 11.9% of the study population consented that they have played other roles in managing disasters.

**Table 11. Role of the military in disaster rescue operations in the study area**

Response	Frequency	Percentage
Very good	279	75.4
Good	60	16.2
Poor	19	5.2
Very poor	12	3.2
<b>Total</b>	<b>370</b>	<b>100</b>

Source: Researchers field work (2017)

Table 11 revealed response of participants to the role of the military in disaster rescue operations in the study area. This showed that 279 respondents representing 75.4% of the study population agreed that the role of the military in disaster rescue operations in the area was very good, 60 respondents representing 16.2% of the study population agreed that the role of the military in disaster rescue operations in the area was good, 19 respondents representing 5.2% of the study population agreed that the role of the military in disaster rescue operations in the area was poor, while 12 respondents representing 3.2% of the study population agreed that the role of the military in disaster rescue operations in the area was very poor.

**Table 12. Acknowledgement of partnership with military in disaster rescue operations**

Response	Frequency	Percentage
Yes	269	72.7
No	101	27.3
<b>Total</b>	<b>370</b>	<b>100</b>

Source: Researchers field work (2017)

The Table 12 showed the respondents acknowledgement of partnership with the military in disaster rescue operations in the area. 269 respondents representing 72.7% of the study

population acknowledge partnership with the military in disaster rescue operations in the area, while 101 respondents representing 27.3% of the study population did not acknowledge partnership with the military in disaster rescue operations in the area.

Table 13 shows the different areas in which the public partnered with the military in disaster rescue operations in the area. 90 respondents representing 24% of the study population stated that they partnered with the military in the area of planning, 100 respondents representing 27% of the study population stated that they partnered with the military in the area of logistics, 50 respondents representing 14% of the study population stated that they partnered with the military in the area of preparedness, 120 respondents representing 32% of the study population stated that they partnered with the military in the area of security intelligence and information gathering, while 10 respondents representing 3% of the study population stated that they partnered with the military in the area of rescue during disaster.

**Table 13. Areas of partnership of the public with the military in disaster rescue operations**

Response	Frequency	Percentage
Planning	90	24.0
Logistics	100	27.0
Preparedness	50	14.0
Security intelligence	120	32.0
Rescue	10	3.0
<b>Total</b>	<b>370</b>	<b>100</b>

Source: Researchers field work (2017)

**Table 14. Impact of military participation in disaster rescue operation**

Response	Frequency	Percentage
Yes	287	77.6
No	83	22.4
<b>Total</b>	<b>370</b>	<b>100</b>

Source: Researchers field work (2017)

On the impact of military participation in disaster rescue operations as shown in Table 14 above, 287 respondent representing 77.6% of the study population agreed that military participation in disaster rescue operation had an impact in the area while 83 respondent representing 22.4% of the study population agreed that military participation in disaster rescue operation had no impact in the area.

Table 15 revealed the impact of public participation in disaster rescue operations in the area. 201 respondents representing 54.3% of the study population agreed that public participation in disaster rescue operation had an impact in the area, while 169 respondents representing 45.7% of the study population stated that public participation in disaster rescue operation had no impact in the area.

Attitude of Government to disaster rescue operations in the area is shown in the Table 16. 120 respondents representing 32.4% of the study population consented that Government attitude to disaster management in the area is very effective. 197 respondents representing 53.2% of the study population consented that Government attitude to disaster management in the area is effective, while 53 respondents representing 14.3% of the study population consented that Government attitude to disaster management in the area is not effective.

**Table 15. Impact of Public participation in disaster rescue operation**

Response	Frequency	Percentage
Yes	201	54.3
No	169	45.7
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

### 3.2 Hypothesis Testing

The hypothesis of the study states thus;

Ho: There is no statistically significant impact of Military and public participation in disaster rescue operation.

H<sub>1</sub>: There is a statistically significant impact of Military and public participation in disaster rescue operation.

And this was tested using the Chi-Square analytical tool.

Chi-Square  $X^2$  calculated value is 30.32, while the critical value at 1 degree of freedom and 95% significant level is 3.841

**Table 16. Attitude of government to disaster rescue operations**

Response	Frequency	Percentage
Very Effective	120	32.4
Effective	197	53.2
Not Effective	53	14.3
<b>Total</b>	<b>370</b>	<b>100</b>

*Source: Researchers field work (2017)*

Results: since the calculated chi-square statistic value of 30.32 is greater than the critical value of 3.841, it is implied that we reject the null hypothesis, which states that there is no statistically significant impact of Military and public participation in disaster rescue operation and accept the alternate hypothesis, which states that there is a statistically significant impact of Military and public participation in disaster rescue operation.

From the study the following findings were noted;

1. The study revealed that flooding is the most predominant disaster that the people in the area have suffered.
2. The study also revealed that at the time of this study the respondents agreed that they have participated in disaster management in the area, this could account for the level of peace been experienced in the area, this agrees with the work of Hossain (15).
3. Participation in security of lives and property was identified as the most predominant role played by the people in disaster rescue operations.
4. The role of the military in disaster rescue operations in the study was very good, this is in line with the findings of Cl. Raj (14).
5. The study revealed that the people in the area partnered with the military in different areas towards disaster rescue but mostly on security and intelligence gathering. This agrees with the work of Hall and Cular, (12) in their study revealed that Philippine disaster framework recognizes the military's role in disaster relief, utilizing approved existing operational mechanisms for accepting international assistance and procedures for military-to-military cooperation in maximizing the success of relief and rehabilitation tasks.
6. It also revealed that the military participation has an impact on disaster rescue operations in the area and that the participation of the public also had an impact on disaster management operations in the area as well. This agrees with the work of Col. Raj (14), who stated that the primary role of the armed forces is basically the defense of the country against external and internal threats which is unambiguous and needs no deliberation.
7. The attitude of the Government to disaster rescue operation in the area, as revealed by the study is in general effective.

8. The study revealed that there is a statistically significant impact of Military and public participation in disaster rescue operations.

#### 4. CONCLUSION AND RECOMMENDATION

In conclusion, the study has shown that coordinate public and military participation in disaster rescue operations are useful and essential for successful disaster rescue operations. It is therefore necessary that amidst disasters, the public who are the recipients of the negative effects of the disaster should be given a place in decision making with regards to rescue and rehabilitation operations in their locality. Such a positive step will help donor organizations to have a clearer view of the locality for easy assessment of damages and needed follow up rehabilitation operations.

The following recommendations are suggested;

1. There is need for community participation in decision making for disaster management as this will easily communicate and foster easy acceptability of the locals with the operators.
2. Military participation in disaster rescue operations is very necessary and should be encouraged because of the security intelligence that is required in disaster based operations especially cult related community based ones.
3. There is need for public enlightenment on the need for partnership between the public and the military, which is a partnership in progress for effective disaster rescue operations, monitoring, response recovery and preparedness.

#### CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the author(s).

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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