

# **SECURITY EQUIPMENT AND CRIME CONTROL IN LAGOS STATE, NIGERIA**

**BY**

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## DECLARATION

I, Akintola, Abayomi Iskilu, with Registration Number Reg. No: Soc/Ph.D/17/012 hereby declare that this dissertation titled "Security equipment and Crime control in Lagos state, Nigeria", is the product of my own research effort under the supervisions of Dr. Agba A. Ogaboh and Prof. Godwin Agogo Ugaland has not been presented elsewhere for the award of a degree or certificate. All sources have been duly acknowledged.

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## CERTIFICATION


This is to certify that this dissertation titled "Security equipment and crime control in Lagos State, Nigeria" and carried out by Akintola, Abayomi Iskilu with Registration Number SOC/Ph.D/17/010, has been examined and found worthy for the award of Doctorate (Ph.D.) Degree in Sociology (Criminology).

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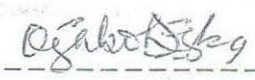
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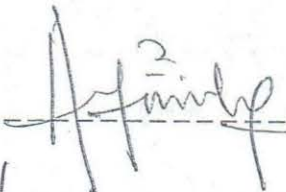
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## ABSTRACT

This study investigated Security Equipment and Crime control in Lagos State, Nigeria. The study specifically examined the relationship between customized patrol vehicles, communication gadgets, arms and ammunitions, closed-circuits television cameras and Crime control in Lagos State, Nigeria. These objectives led to the formulation of four Hypothesis which were stated in the null form. A comprehensive review on a literature was carried out on the variables under study. Three theories were adopted to guide the study. These theories are; Socio-technical system theory, Diffusion of innovation theory and technological determinism theory. The Cross sectional survey research was adopted for the blueprint of the study. The study area is Lagos State. The population of the study included both male and female members of the police force who reside within the study location. Data for testing the hypothesis were generated using the 24-item questionnaire and 17-item key information interview guide. The questionnaire was designed in Likert scale format and was into three parts. Section A contained the biographic data of the respondent, Section B contained questions raised based on the independent variable, and was further sub-divided into four sub-units. Section C contained questions on the dependent variable. Data were collected from 1,055 samples through multi-stage sampling techniques from the thirteen police area command that make up Lagos State. The sample size was determined using the Survey Monkey Sample Size Determinant Technique. Data generated were collated, coded and statistically tested using linear regression analysis tool. Results revealed that customized patrol vehicle has significant positive impact on crime control in Lagos State. Result also revealed that the availability of a communication gadget has a significant positive effect on crime control in Lagos State. Findings also showed that adequate arms and ammunitions have a significant positive impact on crime control in Lagos State. Finally, result showed that closed circuit cameras have a significant impact on crime control in Lagos State. The study concluded that security equipment plays an important role in crime control. The study therefore recommends amongst others, the Nigerian Police Authority should appraise previous reports, findings and information on the state of police equipment with the aim of adequately equipping the police force. Also, there should be an increase in the number of patrol vehicles, while the old ones should be properly maintained.

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## ABBREVIATIONS

CCTV	-	Closed-Circuit Television Camera
LCDA	-	Local Council Development Areas
SPSS	-	Statistical Package for Social Sciences
KII	-	Key Informant Interview
LGA	-	Local Government Area
CDPD	-	Cellular digital packet data
PPRO	-	Police Public Relations officer
HF	-	High Frequency

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

Crime control and prevention all over the world has been a topic of study for academics and practitioners alike, and is defined as the process of legally gathering evidence of a crime that has been or is being committed (Brown, 2001). Security of lives and property is the main *raison de'tre* of a state and the agency saddled with the responsibility, constitutionally, to provide order within the framework of law is the Nigerian police. The Nigerian civil war that lasted for thirty months between 1967 and 1970, brought about untold changes to the annals of the country with its attendant effects and razzmatazz. During the clean-up, crimes of various degrees took centre stage with never before seen capacity, sophistication and dexterity which promptly took the controllers unaware and made them regroup and theorized on the appropriate measures to control and prevent crimes.

Security of life and property is a principal human right ensured under the 1999 constitution. Successive administrations have made efforts, notably since 1999, to provide this. However, growing poverty, wide income disparities, high level of unemployment, social dislocation caused by massive rural –urban migration and the breakdown of societal values leading to various crimes (419, drug abuse, money laundry, kidnapping, terrorism, herdsman violence), and community unrest account for the growing concern about the level of uncertainty and security in some parts of the country (Besley, Persson, & Sturm, 2010; Hinduja, 2009). In Nigeria the main institution that is constitutionally empowered and established to guarantee security to the ordinary citizen is believed to be incapacitated by limited manpower and skills

relative to society's demand, poor funding, poor equipment and general lack of proper orientation and commitment by some operatives (Alemika, 2003; Hinduja, 2009).

It is a discernible fact that equipment play indispensable and essential role in any human establishment (Okpa, 2015). Equipment have been evaluated as one of the most noteworthy resource any association should invest in. Essentially, in any organization, the availability of working tools advance polished skill, professionalism and proficiency. Organizations generally depend partly on equipment to fulfil their responsibilities. This practice also applies to safety agencies that rely on safety facilities to discharge their statutory responsibility. Security equipment is a generic word used to define a variety of instruments used by security agents in their activities while crime control is linked with the state funded organization constitutionally created and empowered to prevent the occurrence and ensure safety of lives and property in Nigeria. In this context, the police force.

Security equipment have been used all over the world by various security agencies to combat security challenges. Particularly, the police frequently depend on different security equipment to enhance its effectiveness in fighting crime. Security equipment enables the police to carry out routine patrol, criminal investigation, intelligence gathering, surveillance, as well as enhance greatly service delivery to the public (Sote, 2013). Security equipment such as customized patrol vehicles, communication gadgets, arms and ammunition, operational and crowd control equipment play increasing role in controlling crime. These equipment have demonstrated substantial benefits including improvement in efficiency and effectiveness of police officers and enables greater emergency response (Nimbe & Oluduro, 2011). This suggests that, the quality and quantity of security equipment at

the disposal of police personnel significantly influence their performance during operations and responses to emergency (Balogun, 1999).

In Nigeria, this has attracted limited attention from government and the private sector, despite the enormous advantages of its availability to the constitutionally created police force. Records showed that frequently used safety equipment such as patrol cars, communication gadgets, weapons and ammunitions, baton, tear gas, helmet, etc. are grossly insufficient, inadequate (Alemika & Chukwuma, 2004) and obsolete while when available, they are at variance with contemporary equipment as displayed by criminals and in a state of total abandonment (Ukwayi, et al 2017). In addition, most police formations and stations lack working tools such as stationeries, working space, and other convenience (Omidieyi, 2012). These have negatively impacted on the performance and morale of officers and the force in general (Omidieyi, 2012).

The Nigerian police force has recently been heavily criticized by the Public for its evident failure to efficiently avoid and control crime (Human Right Watch, 2010). Ukwayi, et al (2017) asserts that criminal activities especially violent crime involving armed robbery, ritual, murder, political assassinations, kidnapping, ethno-religious violence, and electoral violence seem to be on the increase while the police force appears to be dysfunctional despite public outcry. However, Alemika & Chukwuma (2004) hypothesise that the apparent inability of the prosecutorial agent of the state to combat the crime phenomenon is usually blamed on institutional constraint. Top among them is lack of sophisticated crime control equipment. Others include; inadequate manpower, insufficient labour force (knowledge, power and skills), poor welfare package, as well as lack of assistance/information from civil society (Osanyede, 2008).

Alemika & Chukwuma (2006) observe that qualitative and quantitative inadequacies of men and women, materials (security equipment), money within the Nigeria Police Force, as well as poor and inadequate social infrastructures within the Nigerian society, militate against police effectiveness and inhibit crime control mechanism, that an ineffective police force cannot guarantee the security of citizens. While those factors militating against the force abound in most scholarly literature, however, there is near absent of empirical facts to support the assumption of how security equipment affect crime control in Nigeria. This research is set to bridge the knowledge gap by providing answers to the research questions raised through concrete inquiry on factors inhibiting the efficient and effective police functions against criminals. It will also serve as a reference article for the missing literature on the subject matter. Thus, the research will critically examine some Nigerian police-equipment and how they impact or inhibit the force's operational effectiveness. Specifically, the study will investigate the effect of security equipment such as customized patrol vehicles, communication gadgets, arms and ammunition on crime control by Lagos State police command in Lagos State, Nigeria.

## **1.2 Statement of the problem**

The prevailing situation in Nigeria is such that crime is increasingly significant (Ahmed, 2010). This argument, however, can be sustained from different perspectives. It is not out of place that a society undergoing developmental changes be prepared to go through rise a in the degree of venomous crime ranging from armed robbery, banditry, herdsmen attack, stealing, ritual killing, kidnapping, rape, the use of illegal weapons due to proliferation of arms, internet fraud of various dimensions, economic crimes, among others as depicted by the recent happenings in Nigeria. However, the challenge is that the instrument of the state charged with the statutory



responsibility of protecting lives and property is getting subdued by these occurrences. This has given lawbreakers the leverage to be some steps ahead of the law enforcement agency. This situation has made the Nigerian Police Force reactive instead of being proactive to criminal occurrences.

Addressing the myriads of criminal activities in Lagos has been a herculean task for the security operatives in the state. Criminal elements and hoodlums parade the street of Lagos, causing havoc, maiming, fighting and destroying properties worth millions of Naira with impunity without major challenge from the security operatives. This seems obvious that the government has failed in its capacity to ensure safety of the people and their properties.

Many factors have been assumed to be responsible for these problems at hand. Conspicuous among them is the Security equipment available to aid the operational capacity of the force or the lack of it.

A great deal of literature on crime in Lagos State reveals that the Nigerian police force has failed in its constitutional duties, and this has resulted to high crime rate and killing of Nigerians by armed hoodlums. According to crime report, by the crime website Numbeo (2020) between 2017 and January 2020, crime rate in Lagos state rose to as high as 69.59 per cent. Crimes in Lagos State are committed with impunity as houses, banks, and other commercial outfits are violently robbed and looted. Public and private buildings are also bombed or burnt without apprehending the perpetrators. Crime has become so endemic in recent times, to an extent that it has been argued in many sectors of the country, that the huge socio-economic gains which could have accrued to the Nigerian state for its development is being hampered. Virtually every part of Nigeria has felt the pinch of crime control inefficiency. The

situation is worrisome when viewed against the backdrop of huge money budgeted for security yearly in the country.

The Nigerian Police Force is short of both operational vehicles and communication gadgets, making police personnel routinely late or unable to respond to crime, distress and emergency calls. More so, crime control officers that patrol the streets and highways fuel and service the vehicles used for duties from their own resources. This they mostly get from creating unnecessary roadblocks and impediments for commuters to access roads without hindrances. This practice is unacceptable and against international best practices. Again, situations abound where criminals are sighted by the police while in operation, the police are often than not incapacitated to go after them because of lack of functional vehicles or fuel. The relative state of the unpreparedness of the police force in the face of bandit armed with modern sophisticated weapons exposes the officers to situation akin to fighting bayonet with bare hands (Onyeozili, 2005).

Furthermore, common writing materials such as papers, pen, etc are either not available or inadequate for the police. In addition, complainants are asked by police officers to provide stationeries before they could be attended to. In the case of arrest, the complainants are asked by the police to cater for their transportation before such arrest could be carried out. This account for the reason why the public do not believe in the police, consequently, not assisting the police in checking crime. Even though cruelty perpetrated by armed robbers, kidnappers and suicide bombers on private and government establishment is common in this country, the frightening proportions of this ungodly activities, precisely suicide bombing which was hitherto strange to this country, exposes the foremost dearth in the strength of the force to accomplish its constitutional duty of protecting lives and property. This study covers the period

between 2005 – 2017. Therefore, this research intends to investigate and ascertain if crime in the study area is due to lack of inadequate, or obsolete equipment or otherwise and to also provide specific empirical data on how the availability of security equipment would affect crime control as dictated by the Nigerian Police Force, with particular reference to Lagos state police Area command, Nigeria. In order to achieve the purpose of this study, the following research questions were raised to guide the study:

- (i) To what extent does customized patrol vehicles impact on crime control in Lagos state, Nigeria?
- (ii) How does the availability of communication gadgets affect crime control in Lagos state, Nigeria?
- (iii) What is the effect of arms and ammunition on crime control in Lagos state, Nigeria?
- (iv) How does the availability of closed-circuit television cameras affect crime control in Lagos state, Nigeria?

### **1.3 Objective of the study**

The general objective of this study is to investigate whether a relationship exists between security equipment and crime control in Lagos State, Nigeria. Specifically, the study seeks to:

- (i) Determine the impact of Customized patrol vehicles on crime control in Lagos state, Nigeria.
- (ii) Examine the effect of availability of communication gadgets on crime control in Lagos state, Nigeria.

- (iii) Investigate the impact of sufficient arms and ammunition on crime control in Lagos state, Nigeria.
- (iv) Determine if closed-circuit television cameras have a significant positive effect on crime control in Lagos state, Nigeria.

#### **1.4 Research hypotheses**

Based on the Research questions and objectives of this study, the following hypotheses were stated to guide the study:

- (i) Customized Patrol vehicles have no significant positive impact on crime control in Lagos state, Nigeria.
- (ii) The availability of communication gadget does not have a significant positive effect on control in Lagos state, Nigeria.
- (iii) Adequate Arms and ammunition have no significant positive impact on crime control in Lagos state, Nigeria.
- (iv) Closed-Circuit Television Camera has no significant positive effect on crime control in Lagos state, Nigeria.

#### **1.5 Significance of the study**

The study may be of great benefit to different classes of people including the police, administrators, policy makers, researchers, students, criminologists and the general reader. It will help bridge the empirical knowledge gap that exists in the effect of security equipment on crime control in Nigeria especially in the study area.

The police will appreciate the findings of this study because; the study will reveal the true nature of security equipment used by the force in controlling crime, as well as make recommendations that could be instrumental to adequately equip the

police force. The findings of this study will also add to existing literatures on crime control in Nigeria.

Administrators on the other hand will benefit through proper deciphering of formations needed by the police and its equipment, shortfalls that would be properly harnessed for effective crime control.

The study will also be beneficial to the policy makers, as it will fill the lacuna to address police operational deficiency through on point policy formulation. Not only do we need to address security equipment shortfalls but proactively change the obsolete ones in our capacity.

The study will enable researchers to identify new areas of research and old ones that need further investigation especially on how security equipment affect crime control in Nigeria.

The study will also be a vital resource material to students in the Sociology departments in various Universities across Nigeria.

Criminologists will equally benefit from the study, because, it will amplify to them the state of the Nigeria Police in terms of equipment and its relationship to controlling crime in the country.

To government and the general reader, the study will provide valuable information, bring to light the importance of security equipment on the nefarious activities of criminals and also offer a searchlight on various criminal activities thereby increasing people's awareness as well as making the people to be security conscious.

## 1.6 Scope of the study

Specifically, the study seeks to investigate the impact of security equipment on crime control as well as determine the relationship between Customized patrol vehicles, availability of communication gadgets, sufficient arms, closed-circuit television camera (independent Variable) and crime control (dependent Variable). This study is restricted to Lagos State, Nigeria. The population of the study is limited information provided by the selected police officers in the study area and that of few selected general public. The time scope of the study is limited to 2021.

## 1.7 Operational definition of variables

The terms used in this study are defined as follows:

**Security equipment:** This refers to a broad range of tools including police customized patrol vehicles, communication gadgets, arms and ammunition and CCTV cameras used by the Nigeria police force to protect lives and property.

**Customized Patrol vehicle:** This refers to the various means and modes of mobility used by the Nigeria police force.

**Communication gadgets:** This refers to the machines or technology that assists the Nigeria police force to transmit, receive, analyse information throughout the process of operations.

**Arms and ammunition:** This is used here to mean instrument and devices used by the Nigeria police force to attack or repel attack during operations.

**Closed-Circuit Television (CCTV):** Refers to the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.

**Crime Control:** Crime control refers to plans taken to reduce crime in a society. In other words, crime control is when plans are put in place to work together to remove criminal activity from the society. Crime control ranges

from the establishment of criminal penalties or sanctions, deterrence, as well as effective security apparatus.

## CHAPTER TWO

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.1 Literature review

##### 2.1.1 Security Equipment and Crime Control

Physical infrastructure and equipment are often a primary obstacle to successful capacity to control crime by security agencies in transitional societies (Umaru, 2018). According to Kurmar (2012) and Regina (2013), the task of providing security, gathering intelligence as well as carrying out investigation is thoughtful activity, these activities, they maintain, needs the integration of numerous sources of information within a limited time. According to Onovo (2011), there is no denying that security agents are poorly equipped in Nigeria and do not have modern technological equipment to perform their work effectively. In police stations and other offices, officers are still dependent on manual record keeping and it takes a lot of time to trace out criminal records (if available at all) of suspects in this age of advanced information and communication technology. Computers are hardly found in police stations and important offices of the police administration and, in most cases, police officials are computer illiterate. It has been noted that the Nigeria police lack adequate modern technological equipment that can help in assisting them combat crimes in the society. The police duties have been revolutionised through the use of information communication technology equipment.

Quarshie (2014) posits that this equipment has aided the operations of the police in different parts of the world to monitor road traffic, carry out investigations with ease and track criminal elements within the shortest possible time. Ukwaiyi, Okpa, Adewoyin, Angioha & Udom (2017) investigated the effect of security equipment on policing in Central Senatorial District of Cross River State, Nigeria.



Three null hypotheses were formulated based on the identified sub-independent variables namely: patrol vehicles, walkie-talkie, arms and ammunition and the independent variable policing. Survey design was adopted in this study. A 27-item questionnaire captioned, "Questionnaire on security equipment and policing" (QSEP) was developed by the researcher and used in gathering data for the study. Data was elicited from 320 police officers who were purposively selected from five (5) Divisional Police Headquarters in Central Senatorial District of Cross River State. The generated data were statistically tested using Pearson Correlation Coefficient statistical technique. Findings revealed a significant relationship between patrol vehicles, walkie-talkie, arms and ammunition, and policing. The study concluded that the effect of security equipment on policing in Cross River State is significant.

Marshall (1998) analyzed the impact of cellular digital packet data (CDPD) technology on officers' performance. Two cars from six local law enforcement agencies were equipped with CDPD technology and tested for 10 days. Researchers found that, although the test group worked less than the control group, they made 18.94% more arrests/citations than the control group. Ioimo & Aronson (2003) analyzed whether the records, investigations and police administration bureaus derive measurable benefits from mobile computing. They used agency data and survey responses collected from a medium-sized police department and reported that computing improved the rate of recovery of stolen vehicles.

Wellford & Cronin (1999) examined factors affecting homicide clearance rates and found that officers' use of information systems in their daily job has relationship with homicide clearances. In a recent study, Braga & Pierce (2004) analyzed the impact of the Integrated Ballistic Identification System (IBIS) in the Boston Police Department and showed that the IBIS system significantly improved

the productivity of the Boston Police Department's Ballistic Unit, and it was associated with a six fold increase in the monthly number of ballistic matches. Ukwayi, Akintola, & Angioha (2019) examined the use of biometric security in business organization and its impact on checking corporate crime in Cross River state, Nigeria. In carrying out this study descriptive survey research method was adopted in selecting three hundred and eighty one (381) samples from four corporate organizations in Cross River state, using the purposive, proportional, stratified and simple random sampling technique. The instrument of data collection was the questionnaire. Data collected from the field was analysed using tables, frequency distribution and ANOVA (one way analysis of variance). Findings revealed that biometric security helps in checking corporate crimes in business organizations in Cross River State, Nigeria

Ayinde & Agwu (2016) sought to analyse the impact of technological innovation on crime prevention and effective policing in Nigeria. The findings show that understanding the effects of technological change is a crucial issue in contemporary policing because in recent times, many developments have been in place with respect to Information Technology (IT), analytic system, video surveillance systems, DNA testing, and other technologies that have far-reaching implications for policing. Also, technological innovations bring about a change in types of crime, change in criminals' attitude and their mode of operation. In a similar vein, Umaru (2018) examined the Nigeria Police Force and Challenges of Crime Control in Nigeria, Jos North Local Government Area of Plateau State. The study utilized survey method. Data were collected from four hundred (400) Officers and Men of the Force in Jos North Area Command, Plateau state, who were randomly selected. Among its findings is that, the Nigeria Police Force is confronted with a lot

of challenges, ranging from: corruption and political influence, lack/shortage of manpower, poor welfare services and lack of modern/sophisticated crime control facilities/equipment and suggested the provision of needed facilities/equipment like modern weapons and taking due advantage of existing crime control gadgets to constantly checkmate criminalities.

Odekunle (2000) identified “discouraging salary, condition of service, rank mobility, promotion-criteria and procedure, distrust and non-usage of outside help (e.g. research), as some of the human problems that affect the performance of the force”. If the assumption made by Freie, (1972), in his book (the pedagogy of the oppressed) that “the oppressed usually let off the steam of their wrath and frustration on their fellow oppressed” is anything to go by, then the negative vibes from the police personnel is not out of place. A practical example of the condition of the Nigeria Police Force as described by Umaru (2018) is the “description of the challenges facing Mpape police station located in Abuja where four discarded shipping containers served as operational bases for the police force”. Musa (2012) explained that “it is from here 93 police personnel manage one patrol vehicle and were expected to provide security to one of the most densely populated satellite town in the country’s Federal Capital Territory with one non-serviceable vehicle, which is presently grounded. The station has just one obsolete computer with no internet access, some of the containers have no light fittings, and no adequate ventilation”.

It was further discovered in the station that: It was a ship wooden structure constructed into a police counter and a charge room. The station has no rushing water and no drainage system. No person, suspect or even criminal should be kept in this kind of place. The conditions are terrible for humans to live in. The situation in Mpape is the reality of too many police stations in the country (Musa, 2012). In the

face of hazardous duty, they perform and are expected to perform (Usman, 2012). A related scenario played out in the same Mpape community in 2019, when dare devil armed robbers laid siege on a first generation bank with the help of a customer service officer of the bank. If not for the spirited effort of the police and the military, the story would have been different. This promptly agreed with Aluyor (2005) assertion that “armed robbers in Nigeria operate almost freely in the society, using deadly weapons without being challenged and detected by the police and where the police is fully informed, give excuses that they do not have weapons to fight armed robbers”.

### **2.1.2 Customized patrol vehicle and crime control**

Customized patrol vehicle plays a significant role in the public service in reacting to events, deterring and preventing offences. It can give a sense of security to people who need protection and discourage those who may commit crimes in the absence of a patrol (Rosenshine, 1970). Customized Patrol cars are used extensively by the police to carry out their responsibility of maintaining law and order. One of the major backbones of controlling crime by security agents (Police) is patrolling. The resources of Crime Control agents are mainly consumed by patrol. It utilizes range of customized cars, motorcycle and whatever equipment that would aid mobility. It allows Officers of the law to make regular circuits or passes through a specific area. Using customized patrol vehicles is expected to increase efficiency of coverage and reduces police contact with citizens.

Concerning the inadequate customized patrol vehicles, it was observed in a study conducted at Kansas city, United States in 2014, to determine whether customized patrol vehicles really deter would-be criminals from breaking the law and does it actually make law abiding people feel safe? The findings revealed that level of patrol using customized vehicles had little influence/effect on crime rates as well as

citizens' fear of crime (Houghton Mifflin Harcourt [HMH], 2014). These findings were, however, re-interpreted by James Wilson, that the result could have been different had the survey utilized unmarked patrol vehicles i.e. reduce crime. The mere presence of customized patrol vehicles may not deter crime unless done aggressively. The Lagos citizens are averse to police presence due to negative perception and disposition of the rotten eggs in the formation. The blasting of siren from customized patrol vehicles had dispersed many criminals' entanglements as well as apprehending criminals.

In another empirical survey done by Philadelphia Police Department to determine the difference between foot patrol and customized patrol vehicles as a means of curbing crime. The finding revealed that there were noticeable differences in the activities conducted by foot and car patrol. Those using customized patrol vehicles officers handled the vast majority of reported crime incidents. Odekunle (2005) in a presentation "Towards efficient and effective policing in Lagos", stressed that equipment needed by the police to combat and prevent crime is motorized patrol vehicles with sophisticated and adequate automatic weapons and communication gadgets. Patrolling is an indispensable element and function of the police services toward crime control. It aids in timely response to crime and replying to distress call promptly. The police use their customized vehicles in conveying their officers to their respective assigned locations as well as provide routine patrol within their area of jurisdiction. Some customized vehicles are meant for specific duties and operations (Metidoba, 2012).

Balogun (1999) asserts that, the objective of patrol vehicle is to disperse policemen in a way that will eliminate or reduce the opportunity for misconduct by law breakers and to increase the likelihood of apprehension, no doubt, as a strong

deterrent effect on potential offenders. Similarly, Oditia (2010) argued that the Nigerian Police Force is not properly equipped for its task of crime control. According to him, the NPF lack standard equipment such as operational vehicles (towing, surveillance and patrol), communication gadgets, and alcohol 41 detectors among others. They are faced with low staff strength, while the competence of the few staff is poor. Many of them are not only untrained but in most cases un-trainable. The NPF also has poor record- keeping facilities. All these put together affect the police capacity in crime control. In the same vein, Fagbohun, (2007) maintains that through motorized anti patrols, crime curtailing and controlling is made possible as police officers have been able to intercept and arrest criminals with ease. This mechanism he contends that when sedulously employed by the police, yield tremendous result for detecting offences, as well as preventing them. Furthermore, Customized Patrol vehicle enhances quick mobilization and widespread motorized patrol (Aberinto, 2008).

Patrol by police officers or other agents of policing may be undertaken on foot, on a bicycle, on horseback, as well as in a vehicle. Generally, police departments use numerous patrolling strategies: preventive patrol or directed patrol. Moreover, the duties of patrol vehicles are multifarious. They range from the pursuit and apprehension of criminals to the rendering of first-aid to the injured. This attribute of the police to curb crimes in the metropolis has been punctuated by incessant song of paucity of funds by the sole financier of the crime control outfit despite the necessity attached to security by the drafters of the constitution. This point was supported by Alemileka & Chukwuma (1998) and Balogun (2003), that inadequate funding of the security apparatuses culminated into lack of adequate patrol vehicles. These vehicles

if available would have been used to patrol hot spots or flagged area known for potential crime.

Police inability was further clarified by Rufai & Adigun (2011), that People have reservations for the Lagos police on account of three reasons, namely: a) perceived rise in crime/inability of the police to cope with the demand for protection by the citizens, (b) poor perceptions about the ability of the criminal justice system to respond to the needs of the victims of crime and (c) inadequacies of the formal police service. Afolabi, Lawanson & Oyinloye (2014) posited that no organization can survive without proper and adequate funding, that the Lagos police as presently constituted has become notoriously incompetent, professionally inefficient and the officers have almost turned the nation's policing institution into another failed national asset due largely to myriad of problems which have infested the structure and organization of the NPF in carrying out its constitutional duties in relation to security management. One of such is the provision of adequate number of customized patrol vehicles for proactive crime control built on prevention and apprehension.

A quick look at their low performance ratings show a great deal of inefficiency arising from lack of mobility and the required logistics. The NPF is staffed with a population estimated to be around 380,000 to 400,000 (Ajike, 2014) aimed at policing a population which is estimated to be around 170 million people, how possible can we expect them to adequately discharge their constitutional role without standard transportation and mobility still baffles many. It is worthy to state that crime in Lagos is different to the other part of the country due largely to its peculiar nature. The state is made up of twenty Local governments. Each with a different style of crime. For instance, Ibeju Lekki and Epe which falls under the Epe

division witnesses' crime from the water ways as these communities are mainly riverine areas.

In 2016, there was an upsurge in the activities of kidnappers and militant elements especially in Ikorodu, Epe and Ibeju Lekki. It was reported that one Mr. Ademola Salami, a 42 Year Old plank dealer was kidnapped on Friday, 7th April, 2017 in Ise community in Ibeju Lekki area of Lagos East Senatorial District by Seven dare devil abductors, who escaped in a gunboat via the river. The abductors later demanded for the sum of 100 million Naira as ransom for his release (Senate, 2017). Identifying some of the challenges of insecurity faced by the communities, Gbenga Ashafa, who represented the district in the National Assembly at the time (2011-2019), noted that "for the past seven years, a divisional Police station commissioned in Ise had been a ghost of itself as no police officer was deployed there until the time after the attack. Ashafa reminded the Nigerian Senate that between April and July, 2016 there were reports of Militant activities in some communities in Ikorodu, including Elepete, Agbede, Ishawo and Igbo-Olomu, which led to the death of residents. These Militants were equally reported to have stormed the communities through the creeks using gunboats. He blamed the loss of lives of citizens and security agents on lack of equipment that could deter these dare-devil criminals especially patrol vehicles with modern technology. Lagos Island is known for street touting, cultism as well as the nefarious and violent activities of the Road transport union. Mushin is another violent area in the state. The table below represents the local governments that made up the state as organized by political wards and number of stations and police posts:



**TABLE 2.1**

Local governments that made up the state as organized by political wards and number of stations and police posts

Name of local government	Areas	Number of police stations/posts
Agege	Isale/Idimangoro; Iloro/Onipetesi; Oniwaya/Papa-Uku; Agbotikuyo/Dopemu; Oyewole/Papa Ashafa; Okekoto; Keke; Darocha; Tabon Tabon/Oko Oba; Orile Agege/Oko Oba; Isale Odo	3
Ajeromi/Ifelodun	Ago Hausa; Awodi-Ora; Wilmer; Olodi; Tolu; Temidire I; Ojo Road; Layeni; Alaba Oro; Mosafejo; Temidire II	5
Alimosho	Shasha/Akowonjo; Egbeda/Alimosho; Idimu/Isheri Olofin; Akesan; Ikotun/Ijegun; Egbe/Agodo; Igando/Egan; Ipaja North; Ipaja South; Ayobo/Ijon Village (Camp David); Pleasure/Oke-Odo; Abule-Egba/Aboru/Meiran/Alagbado	13
Amuwo-Odofin	Amuwo-Odofin Housing Estate, Mile 2; Festac 1; Festac II; Kirikiri; Amuwo; Ijegun; Satellite; Irede; Ibeshe; Igbologun; Festac III	8
Apapa	Apapa I (Marine Rd. and environs); Apapa II (Liverpool Rd. and environs); Apapa III (Creek Rd. Tincan/Snake Island; Apapa IV (Pelewura Crescent and environs); Ijora-Oloye; Olodan St. Olojowou St/Alh. Dogo Olatokunbo St. Iganmu; Gaskiya & environs; Afolabi Alasia Str. and environs; Malu Road and environs; Sari and environs	7
Badagry	Posukoh; Awhanjigoh; Ibereko; Keta-East; Iworo Gbanko; Ajido; Ilogbo-Araromi; Ikoga; Ajara; Iya-Afin	7
Epe	Etita/Ebode; Lagbade; Popo-Oba; Oke-Balogun; Ajaganabe; Ise/Igbogun; Oriba/Ladaba; Abomiti; Agbowa; Agbowa Ikosi; Ago Owu; Orugbo; Ilara; Ibonwon; Odoragunsin; Poka; Odomola; Ejirin; Itoikin	3
Eti-Osa	Victoria Island I; Victoria Island II; Ilasan Housing Estate; Lekki/Ikate and environs; Ilado/Eti-Osa and environs; Ajah/Sangotedo; Ado/Langbasa/Badore; Ikoyi I; Ikoyi II; Obalende	11
Ibeju/Lekki	Ibeju I; N2, (Ibeju II); Orimedu I; 02, (Orimedu II); 03, (Orimedu III); P1, (Iwerekun I); Iwerekun II; S1, (Lekki I); Lekki II; S2, (Siriwon/Igbekodo I); S,2a (Siriwon/Igbekodo II)	7

### 2.1.3 Communication gadget and crime control

The Communication Device is a hardware system capable of transmitting analogue and electronic signals over the telephone, other communication wires and wireless devices. The best example of a communication device is a computer modem that is capable of sending and receiving a signal to enable computers to speak to other computers over the phone. Information Communication Technology has taken crimes to a new height, hence, while crime controllers have decided to accept its usage to prevent and apprehend criminals. Information Communication Technology has been applied globally in crime prevention and control. It is one of the security equipment that has increased proficiency among police officers and it is acceptable by all and sundry. Communication technology is broadly used to refer to top electronic device such as radio, mobile phone, television, Closed Circuit Television (CCTV), hardware and software, satellite system and so on. For better and timely service delivery, police globally make use of Information Communication and Technology (ICT) for their effectiveness and efficiency.

Kurmar (2012) and Regina (2013) aver that the task of providing security, gathering intelligence as well as carrying out investigation is a compound and thoughtful activity, the exercise he maintains need the integration of numerous sources of information within a limited time. Information communication technology has been adopted in developed societies of the world in the reduction of crime to its barest minimum (Quarshie, 2014). The police duties have been revolutionised through the use of information communication technology equipment. This equipment has aided the police in England to monitor road traffic, carry out investigations with ease and track criminal elements within seconds (Quarshie, 2014). The police have a duty to enforce law and order in any country. Unfortunately, as years go by, the rate of

crime keeps increasing. Sethi, (2013) asserts that crime has become very sophisticated as some criminals make use of the very latest technology, therefore to handle their activities, the police has to develop equally sophisticated methods of crime detection and prevention. This was also the view of Rufai Adigun & Raimi (2018) in a paper delivered in an international conference on the same subject matter. In their words

“The need to embrace ICT-enhanced policing in Lagos becomes imperative because of insecurity; robbery, ritual killings, cultism, kidnapping, terrorism and insurgency have taken a new dimension and have gone sophisticated as criminal elements have deployed high-tech approach such as mobile technology, internet technology for exploiting and unleashing criminal activities on the society. To reduce this incessant and unpleasant proliferation of modern crime, calls for the fortification of existing policing approach in Lagos using information communication technologies” (Rufai Adigun & Raimi 2018).

ICTs have a huge role to play, and criminals are one step ahead of the police in making use of the latest technology, including ICTs, to implement their nefarious designs. It makes it necessary for the police to try to keep up with the growing pattern. In the same vein, Ibikunle & Adefihan (2013) examined the impact of Information and Communication Technology (ICT) on effective policing. They argued the indisputable fact that the problem of crime has become acute that the police force has no choice but to use information technology to curb crime. Their findings revealed that the use of ICT and other technologies enhances the performance and effectiveness of the Police. Since technology has ruled the world, our means of communication have been developed to the fullest. We are now linked to people through the quickest and most reliable sources of communication. Some of the

breakthroughs were radios, phones, satellites, and then more modern technologies such as cell phones, computers, and the internet. They help us to communicate with people from all over the world with easy access. Interaction is a very important tool in our lives to keep in touch with others. Modern technology has given us a great privilege in terms of communication. This opportunity offered by technological advancement has been absorbed by the crime control agencies towards prevention and apprehension of criminals.

Communication systems are critical equipment in the law enforcement profession. Tremendous advances in wireless and digital capabilities have made this tool more valuable than ever. Officers can share pictures of suspects, criminal records, bulletins, fingerprints, blueprints, and surveillance video footage across thousands of miles in minutes or even seconds. Among the many important issues of communication systems is the interoperability issue. Interoperability is the ability to share information in a secure, real-time environment. Of primary importance is that the systems and officers can actually talk to each other, regardless of the operating architecture. Several models currently exist that allow communications from different radio bandwidths to be synthesized into one system.

Avalos (2016) summarized the usage of communication gadgets to combat crime as embracing an array of new mobile and stationary technologies by the police in a quest to not only keep up with — but stay well ahead of — criminals and wrongdoers. Pager, wireless phone, walkie talkie and phones are few communication gadgets that have improved security efforts at apprehending and preventing criminals from perpetrating their dastardly acts. Until cell phones became popular in the 80s and 90s, information sharing was made possible through the use of walkie-talkie. This machine was primarily used by the armed forces, the police, private companies and

government parastatals. Communication among law enforcement agencies is enhanced through the use of walkie-talkie. In fact, policing globally is made easy with the help of various communication gadgets used by security officers especially the Police force. It would therefore not be wrong to state that communication devices are synonymous with effective policing. This equipment facilitates the sharing of data among officers during operations (Egobiambu, 2014). Walkie-talkie enables free flow of current information about the happenings around our environment among security agencies.

According to Janet (1997), walkie-talkie aids the police in reducing the chances of criminals escaping; thus increasing the chances of the police officers to apprehend criminals through shared information. Egobiambu (2014) observed that when in pursuit of a criminal who is in a vehicle, it allows a coordinated pursuit to occur that heavily increases the chances of the criminal and driver being stopped and caught. What usually happens is that several police cars follow different surrounding routes in the direction the car criminal is driving in, and then attempting to block him in on a road up ahead. This can only be done through the use of radio contact between the policemen to apprise each other where exactly the criminal is at all times (Ekweremadu, 2013).

According to Osuji (2012), communication gadgets particularly walkie-talkie is a necessary instrument to fight crime and criminalities in the state. He maintained that, law enforcement communications and police communication gadgets are essential assets used for the safety and security initiative in any society. Advancing police interaction helps law enforcement to be more mobile and to respond more quickly to key issues (Babangida, 2012). Osinuga (2013) claims that effective and efficient crime prevention can only be accomplished by sound communication devices

such as walkie-talkie, repeater stations, high-frequency (HF) trucking vehicles, fax machines and generators.

#### **2.1.4 Arms and ammunition and crime control**

Lagos police rely on Ak47s, while criminals; robbers, bandits, kidnapers and terrorists use more sophisticated and dangerous weapons (Sadiq, 2016). Lamenting on the inadequacy of arms as a critical factor for police failure, Daudu (2008) says, The Lagos Police Force is helpless, when confronted with armed robbers, these boys have sophisticated machines that the police cannot withstand' (*Tell Magazine*, May, 2008). Worse still, their foreign counterparts use sophisticated magnetic jackets that can deflect bullets from. Recently, three kidnapers were apprehended by police with two of the acknowledged dangerous firearm ever made (the Turkish tag laser gun) by man. This arm gives upper hand to the men of the underworld and policemen were made to shiver at the hearing of their sound. This and many more are desperately needed by the NPF but not provided for.

Police officers lawfully carry arms to incapacitate violent armed criminals and are legally allowed to use arms during their daily duties. In the discharge of duties placed on the police by constitution, police occupies a strategic position. However, their visibility and contact with the public, and their use of arms has kept them in the forefront of public thought, particularly since the end of the Lagos Civil War in 1970, when the incidence of violent crimes witnessed an accelerated increase probably in its efforts to contain the dangerous trend, and given the penchant for overzealousness by the law enforcement agencies, the Lagos police force (NPF) has to resort to increased use of firearms in its daily task of law enforcement. Makinde (2014) avers that for proficient handling of armed bandits the police force needs to be adequately reinforced with sophisticated weapons such as arms and ammunition, teargas,

hand/blast grenade, long/short range teargas, bulletproof vest cartridges etc. The Lagos Police Force has inadequate arms, logistics, telecommunication gadgets, and transportation facilities.

Kasumu (2017) is also of the opinion that the ineffectiveness and inefficiency is directly a consequence of lack of adequate arms and ammunitions that can deterred and apprehend criminals. Furthermore, that investment in modern software and hardware is sacrosanct for the police in order to match members of the criminal underworld and to outwit them. This same opinion was expressed by Prof. Alemika & Chukwuma that "Resource and management inadequacies have also impacted on police efficiency and conduct (Alemika 1997; 1998; Osoba 1994; Balogun, 2003). Critical among the inadequacies are: Inadequate logistics, arms and ammunitions, uniform and accoutrement, telecommunication and transportation facilities - both in terms of quality and quantity. The police needs to be equipped with sophisticated weapons so that, when faced with criminals or armed robbers who also have sophisticated weapons, they will be able to withstand them. However, the police should be restrained from the use of these arms except as a last resort. Lamenting on the inadequacy of arms as a critical factor for police failure, Daudu (2008) observed that the, "Lagos police are helpless, when confronted with armed robbers these boys have sophisticated machines that the police cannot dare withstand".

The police authorities have recognized the need to train their officers when shooting and have created guidelines for the training of officers in the use of firearms. In the order, the NPF acknowledges that it is impossible to deal with all the circumstances in which it may be necessary for a police officer to use firearms. It however, provides the notes as principles by which a police officer should be guided, which does not in any way override the law. It warns that all police officers should

realize how essential it is to guard against the slightest misuse of firearms and to exercise the utmost forbearance humanly possible that prudence candidate, before resorting to the use of a lethal weapon which may result in the wounding or killing of a fellow human being, is open to investigation by the courts and is liable to be held responsible for his action under criminal law, if the court finds that his use of firearms was unreasonable under the circumstances (Force Order No. 237). Adduced from the above explicit position, the Police Authorities in Force Order 237 has distinctively put officers on the notice that any use of firearms outside the limit contemplated by the order would attract punishment.

#### **2.1.5 Closed-circuit television camera and Crime control**

Closed Circuit Television Cameras have become a highly significant security measure in crime prevention (Gill & Spriggs, 2005). Closed-circuit television surveillance cameras serve many functions and are used in both public and private settings. The prevention of personal and property crime is among the primary objectives in public space. Ering, Okorie & Abonor (2015) state in their work titled 'Crime Management in Nigeria: A sociological analysis carried in Calabar metropolis. Finding revealed that the use of Information Technology like CCTV is positively related to crime management. That the inability of the security agencies to make astounding headway in crime control is due largely to their refusal to adopt IT and its wherewithal to control crime. They further asserted the need for the acquisition and installation of closed-circuit cameras and other crime detection mechanisms in protecting the public and assisting the police in the investigation of crime.

Coleman & McCahill (2010) state that cameras around us do not only function as a crime preventing tool by law enforcement officials. In addition, they are used as social ordering strategy or social orchestration metaphor tool to adjust and to control



the behaviours of people. They argue that being watched by the cameras constantly create a perception that citizens have to control and adjust their behaviours. In this context, media has a key role in legitimizing the widespread functioning of closed-circuit television camera accepted by the public by stating that cameras are vital to provide secure and safe society without questioning them (Koch, 2010) As an intervention targeted at crime, closed-circuit television camera is a type of situational crime prevention (Clarke, 1995).

According to Clarke & Hormel's (1997) classification of situational crime prevention, closed-circuit television camera is viewed as a technique of "formal surveillance". In this regard, closed-circuit television cameras are seen to enhance or take the place of security personnel. It is argued that closed-circuit television camera (especially if well publicized) may prevent crime because potential offenders are deterred by their increased subjective probability of detection. Also, closed-circuit television cameras may increase the true probability of detection, may increase pedestrian usage of places, and hence further increase the subjective probability, may encourage potential victims to take security precautions, and may direct police and security personnel to intervene to prevent crime (Armitage, Smyth & Pease, 1999). For a safer country, Ogunleye, Adewale, Alese and Ogunde (2011) maintained that the United Kingdom is one of the most watched countries in the world with over five million CCTV cameras in use today. Recent literature illustrates the importance of closed-circuit television camera that makes it possible for shop owners, business managers and the police to deter and respond to incidents of crime alerted by such technology (Fletcher, 2011; Gill & Spriggs, 2005; Welsh & Farrington, 2003; Shapland, 1995). A major function of closed-circuit television camera surveillance is

that of storing images of incidents of crime and anti-social behaviour as to facilitate post incident analysis during investigations (Gill & Spriggs, 2005).

Armitage (2002) and Tilley (1993) states that the effective use of closed-circuit television camera surveillance is mostly related to: deterrence, efficient deployment, self-discipline, presence of capable guardian and detection. Welsh & Farrington (2008), Armitage (2002), and Tilley (1993) argue that closed-circuit television camera surveillance may deter crime because it makes potential offenders more aware of an increased risk of identification and apprehension. Closed-circuit television camera may deter crime due to an increase in the likelihood of offenders being caught (Tilley, 1993). In fact, this is in line with the rational choice theory, which states that rational beings choose to commit a crime after weighing its possible costs and benefits (Becker, 1968). Sarno (1995) found that closed-circuit television camera had a significant impact on reducing fear of crime in the boroughs of London. Brown (1995) indicated that closed-circuit television camera is an effective tool in reducing fear of crime among public in the case study of Birmingham, UK.

Welsh & Farrington (2008) presented a comprehensive systematic review and meta-analysis of 41 quasi-experiments whose follow-up periods ranged between 3-60 months. Their findings indicate that surveillance cameras reduced crime by an average of 16%. However, this result was mainly driven by a large crime decline in car parks. No significant desirable effects were found in other public settings. Some of the included studies also found spatial displacement (i.e. crime increases in areas adjacent to the experimental condition), but others found no such effects or even diffusion of benefit (i.e. crime decreases in adjacent areas). Gill & Spriggs' (2005) seminal study of 13 video surveillance projects in the UK. Although the study found a 'relatively substantial reduction' of police reported crime in six of the projects, only

two of these reductions were statistically significant and the authors argue that one of the two may be explained by the presence of confounding variables. Similarly, victimization surveys found no statistically significant changes in crime (Gill & Spriggs, 2005).

Using camera installation sites and randomly selected control sites, Caplan, Kennedy & Petrossian, (2001), assessed the impact of closed-circuit television camera on the crimes of shootings, auto thefts, and thefts from autos in Newark, N.J., for 13 months before and after camera installation dates. Findings revealed that strategically placed cameras were not any different from randomly placed cameras at deterring crime within their view sheds; there were statistically significant reductions in auto thefts within view sheds after camera installations; there were significant improvements to location quotient values for shootings and auto thefts after camera installations. There was no significant displacement and there was a small diffusion of benefits, which was greater for auto thefts than shootings. The study focused on only crimes such as robbery and auto theft, but did not focus on crimes such rape, mugging and kidnapping.

Welsh & Farrington (2009) studied Public Area closed-circuit television camera and Crime Prevention: An Updated Systematic Review and Meta-Analysis. The study examined 93 studies on surveillance systems to see how effective they are at reducing crime and deemed 44 to be sufficiently rigorous for inclusion. Many of the studies were based in the United Kingdom, while others were in U.S. cities such as Cincinnati and New York. The analysis found that surveillance systems were most effective in parking lots, where their use resulted to a 51% decrease in crime. Systems in other public settings had some effect on crime, a 7% decrease in city centers and in public housing communities, and a 23% drop in public transit systems but the results

weren't statistically significant. When sorted by country, systems in the United Kingdom accounted for the majority of the decrease; the drop in other countries was insignificant. The study concludes that while surveillance cameras can be effective in specific contexts such as parking lots and public-transit systems, the potential financial and societal costs require greater research. The study only focused on how closed-circuit television camera prevents crime but not how it can be used to curb crime.

McLean, Worden & Kim (2013) in their study titled 'here's looking at You: An Evaluation of Public closed-circuit television camera Cameras and Their Effects on Crime and Disorder. The study examined the impact of public surveillance cameras on crime and disorder in Schenectady, N.Y., a medium-sized city in the North-eastern United States and assessed camera impacts by analysing monthly counts of crime and disorder-related calls for service that occurred within each camera's 150-foot view shed as an interrupted time series, with the interruption at the time that the camera in question was activated. The study also analysed counts of incidents between 150 and 350 feet of cameras to assess displacement effects and diffusion of benefits. The study further estimated camera effects on counts of only incidents in public location street crimes. Findings suggest that cameras have had effects on crime, even more consistent effects on disorder, and that the visibility of cameras is associated with its impact on crime and disorder. Abdulkadir (2004) asserted that the Nigeria Police Force lack adequate communication gadgets, vehicles, computers, crime detecting appliances, forensic experts and laboratories. For him, it is even a thing of shame, that some of the police officers do not even know what CCTV means and stands for.

## **2.2 Theoretical Framework**

Theory is the greatest asset in successful scientific research, the compass that directs the course of research methodology, presentation and interpretation. Therefore, it is pertinent to be sure of the theoretical orientation that best fits research enterprise. In each social science discipline, there are wide range of theories according to historical context, ideological position and empirical foundation which can be employed to guide a given research enterprise. For the purpose of this study, Socio-technical system theory, Diffusion of Innovation theory and Technological determinism theory, were adopted to investigate the impact of Security Equipment on crime control in Lagos State.

### **2.2.1 Socio-technical system theory**

The socio-technical system theory was coined by Eric Trist, Ken Bamforth and Fred Emery in the 1960s. It simply refers to the interaction between man and technology. The theory is based on the premises that an organization or a work unit is a core combination of social and technical elements that it is open to its environment (Trist, Higgin, Murray & Pollack, 1963). The theory was developed to address the shortcomings of the traditional approach with its attendant negativity. The socio-technical methodology has had a wide-spread usage due to its value judgment and therefore has the capacity to be "easily applied to almost any organizational situation ... and remains open to process improvement and revision" (Hackman & Oldham, 1980). The coordination between human and technical activities can only be successful and meaningful if one system is supportive of the other (Hackman & Oldham, 1980). The interrelatedness and interconnectivity nature of all systems bring about a mutual change (Harvey & Brown, 1992). It is widely recognized that adopting a socio-technical approach to system development leads to systems that are more

acceptable to end-users and deliver better value to stakeholders. However, such approaches are not widely practiced. (Baxter & Sommerville, 2010).

The socio-technical system theory is used to explain how technology implementation and usage influences productivity in organizations. The theory tries to create a framework for understanding the interdependencies between the man and technology in modern organizations (Bostrom & Heinen, 1977). Socio-technical system theory argues that organizations are made up of two sub-systems; a social system and a technical system (Cherns, 1976; Mumford, 2000). The social sub-system includes those structural and human elements in an organization, while the technical sub-system are the technologies and tasks that humans perform using these technology (Avgerou & Land, 1992). The technological system tries to minimize task accomplishment, while a social system tries to improve the quality of task. The socio technical system theory is of the opinion that, while organizations is implementing technology, the objective must be to combined optimization of the social and technical systems. The combined optimization or the fit between both systems can only be achieved when human needs are faithfully considered during the implementation of technologies. It is this fit between the technical and social sub-systems that stimulates the success of technology implementation. The Fit happens when the plan process optimizes the two sub-systems. An Imbalance in any of the two systems leads to damaging outcomes, such as reduced productivity.

Bostrom & Heinen (1977), in their study showed how the socio-technical system theory can be applied to technology usage in organization. Their finding shows how the innovation of new technology equipment can influence other subsystems. Technology is used to accomplish tasks and when there is a new

technological system, employees must not only learn how to communicate with the system but also learn how to perform old tasks using the new technology. Organizations are often influenced by new technology usage and implementations, in so much as a new technology can alter organizational form and functions. The Socio-technical system theory has been used in studies of various variable of individual, group, and organization such as job satisfaction, innovation, and in the development and designs of a wide range of organizational systems (Geels, 2005; Walker, Gunderson, Kinzig, Folke, Carpenter & Schultz, 2008).

This theory is particularly suited for this study in the context of security equipment usage and implementation by the Lagos Police Force. Before the implementation and usage of modern police technological equipment by the police, only the social elements existed i.e., structure, people, and task. However, the adoption, implementation and usage of modern security equipment has had significant influence, altering the structure of work by the police by making them fast and quick in responding to issues and also to control crime. This theory is well suited for this study, as it helps to understand the impact of the Lagos Police, especially on crime control due to the adoption of modern security equipment.

The weakness of this theory is however, located within the unavailability of framework for change. Social technical system theory is adjudged to be a tool for guiding the integration of change. The lack of political will by actors and stakeholders alike impede the change intended by technology.

Also, differences in cultural orientation, value systems as well as commitment would bring about segmented results in different society. The theory further tends to equate man as complementary to machine thereby reducing humanity to abstraction instead

of the driver. However, it is unaccounted for if the fit between social elements and technical elements can be met in Lagos State before adoption of technology as solution to controlling crime in the state. Traditional means of controlling crime is still canvassed for in transitional society like Lagos, Nigeria.

### **2.2.2 Technological determinism theory**

Technological determinism is a reductionist theory that assumes that a society's technology determines the development of its social structure and cultural values. The term is believed to have originated from Thorstein Veblen (1857–1929), an American sociologist and economist. Among its many proponents are Clarence Ayres, John Dewey and William Ogburn who were known for their deep-seated technological determinism. The theory posits that expansion in social cultural standards; social structure as well as historical events are driven by technology. Contextualizing this view, the theory exposes the leap within human environments separating human society from primitive entity to an actual enclave of social order. Before the advent or emergence of technology (equipment), human activities were controlled primitively and fused under planning (mental) and performance (physical) resulting in slow, delayed and archaic output. However, respite came when happenings of the industrial revolution gave birth to the separation of the two and modern methods were introduced to challenge human capacity occasioned by civilizations.

The theory views technology as a key governing force in the social system, it believes that social progress is motivated by technological innovation. In addition, the theory asserts that technical forces determine both social and cultural change. According to technological determinists, particular technical developments, communication technologies or media, or most broadly, technology in general are the



prime antecedent causes of change in society, and technology is seen as the fundamental condition underlying the pattern of social organization (Chandler, 1995). Technological determinism has been defined as an approach that identifies technology or technological advances, as the central casual element in the process of societal change. The theory is used to explain how technology influences man's transition in life. Technological determinism is a concept that defines a set of claims made about the relationship existing between technology and the social system. The assumption of the theory is that technology shapes relations. Also, the theory states that social change, development and growth are the product of technology. Meaning, that technology dictates user behaviour and action (Green, 2001). This implies that technology is the driving force of any meaningful change in the society.

Most interpretations of technological determinism share two general ideas: that the development of technology itself follows a predictable, traceable path largely beyond cultural or political influence, and that technology in turn has "effects" on societies that are inherent, rather than socially conditioned or produced because that society organizes itself to support and further develop a technology once it has been introduced. Strict adherents of technological determinism do not believe the influence of technology differs based on how much a technology is or can be used instead of considering technology as part of a larger spectrum of human activity.

The theory has implication for this study. Adequate provision of security Equipment has the capacity to boost crime prevention and also assist officers to effectively discharge their duties. Security equipment such as patrol vehicles, close circuit cameras, tear gas, protective gear, drones, and many others influence the prevention and control of crime. Based on the proposition of the theory, social problems such as armed robbery, kidnapping, arson, fraud, cybercrime, terrorism,

banditry, militancy, bunkery among others can be curtailed through adequate supply of functional security equipment. This will bring about growth and development. Based on this theory the rate of crime can be determined by the quality and quantity of functional security equipment. The theory has been criticized for reductionism and simplicity of social issues.

Despite the acclaimed strengths of technological determinism theory, there are still some criticisms bedeviling the theory. The theory places a greater emphasis on the autonomous and social shaping tendencies of technology. It is a valuable perspective that relegate the relevance of social institutions (cultural values) especially family to the development of the society. Since man developed technology, only man is to be applauded as the governing force in the social system.

Ancient civilizations were crude and traditional in settings, yet resounding feats were recorded in history to have been achieved.

### **2.2.3 Diffusion of innovations (DOI) theory**

This Theory was introduced by Rogers in 1962. The theory introduced several factors that determine the decision to adopt a new technology (i.e. new innovation). By the help of empirical research, Rogers (1983) identified relative advantage, compatibility, technical complexity, trial ability and observability as the key factors that shape the decision process considering adoption of new technology. Rogers' diffusion of innovation theory postulates that diffusion of innovation occur as potential users become aware of the innovation, judge its relative value and make a decision based on their judgment, to either implement or reject the innovation. The theory consists of three components: 'the innovation decision process, characteristics of an innovation and adopter characteristics (Bates, Manuel & Oppenheim, 2007).

The 'innovation decision process' categorizes the steps an individual or organization takes from awareness of an innovation, through the formulation of an attitude to the innovation, on to the decision as to whether to implement or adopt such innovation. Diffusion is difficult to quantify because humans and human networks are complex. It is extremely difficult, if not impossible; to measure what exactly causes adoption of an innovation. Diffusion theories can never account for all variables, and therefore might miss critical predictors of adoption. This variety of variables has also led to inconsistent results in research, reducing heuristic value.

In adapting this theory to this study, this study sees diffusion of Innovation as being a new innovation available that can help in preventing crime. Government, security agencies, institutions and organisations become aware or come in contact with such information and recognise that this new innovation will help in preventing crime and providing security, make a conscious decision to adopt these new innovation. Cordella (2006) asserts that the diffusion of security innovation in the present era is associated with increased amount of information becoming available. Therefore, as organizations for example such as security agencies and organisations become aware of available security equipment that could reduce, control, prevent crime and provide security, the decision makers make a conscious effort to adopt these innovative security equipment to improve the security situation in the society.

A prominent weakness of Diffusion of Innovation Theory was inability to consider differences in structural capacity towards making a decision to adopt or chart a new course through technological innovation. Since the unit or agency consciousness predates the decision making of technology, it fails to acknowledge problems associated with transitional society like Nigeria. The conservative opinion still strongly support the traditional way of controlling crime in the society as they

perceive technology as inconsistent with the existing societal values, past experiences and needs of potential adopters.

The stages put forward by Rogers before eventual adoption is at variance with bureaucratic nature of our system.

### **2.3 Theoretical synthesis:**

This study adopted the three theoretical underpinnings since the assumptions and interrelatedness of the theories explain the phenomenon under study. The justification and logic behind the adoption of these theories, is that, on the part of socio technical system theory, it allows for the force's operational efficiency and effectiveness to be determined as soon as social elements interface or combine with technology. Lagos being the commercial nerve of the country with an estimated population of 15 million (World population review, 2019), already has her hands full in terms of social order. The police command with its constitutional mandate, faces new criminal challenges with different modalities, sophistication and dexterity. The only way to properly present a case to the citizen and inhabitants of the state (stakeholders) to be accepted, trusted with a top-notch delivery, according to socio technical theory, is the interface with technology i.e., technical element.

Already, the command enjoys good structure, litany of personnel with task in need of attention, only modern and sophisticated technology, tools and gadgets can adequately resolve issues pertaining to crime in the State. Generally, from the theories expounded, no one theory can be used to the exclusion of the other due to the important issues raised in their assumptions. For instance, the Technological Determinism theory helps to explain development and change from the point of view of technology available at the disposal of the unit, organisation or state. The proponent of this theory posited that technology is a key governing force in the social

system. The Diffusion of Innovation theory on the other hand, is of the view that necessity in the society would drive the consciousness/ awareness of the need for the adoption of technology as a way forward. In summary, all these theories proffer solutions on how to strengthen Lagos state police command operational effectiveness and capacity through the adoption and usage of technology. The three theories are relevant to the study because they provide a complete approach to understanding technology as a means of addressing current challenges.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Research design

The design adopted for this study was the cross-sectional survey research design. The design was adopted because it is that type of survey in which information is collected from only a fraction of the population selected in such a way as to represent the whole. In survey research, independent and dependent variables are used to define the scope of study, but cannot be explicitly controlled by the researcher (Glasgow, Magid, Beck, Ritzwoller & Estabrooks, 2005). The Researcher's decision to use survey as this study's research design was also informed by the fact that Surveys are capable of obtaining information from large samples of the population. The survey design allows for the provision of information on the characteristics of the study population at specified time period. Data are collected at one point in time only (Obikeze, 1990). The survey research design was adopted because the area that was covered by this study is large and so, this method enabled him use the sample drawn to represent the various elements of the population.

In using the cross-sectional survey research design, the researcher used both qualitative and quantitative method in the process of data collection. With these, the researcher was able to triangulate the response of the respondents. In so doing any loophole in any one method will be taken care of by the other, as it is practically impossible for one method to properly capture all the elements of the social reality. By triangulating, the researcher was able to increase the validity through verification of this study.

### 3.2 Study Area

The city known as Lagos State originally emerged as a collection of islands inhabited by the Aworis and Benin people who made it a port for transportation of goods. The islands were separated by creeks and contained the current Lagos Island, Eti Osa, Amuwo-Odofin and Apapa (Campbell, 2012). Currently the State is made of two regions; the island which is the original city, and the mainland. The metropolis part of the state occupies 37 percent of the state's land area and houses 90 percent of the state's population (UNICEF 1995, Aina, 1990). According to the Lagos Bureau of Statistics (2016) the projected population of Lagos as at 2016 using an Annual growth rate of 3.2 percent stood at 24, 051,762.

Lagos state is located in the south western part of Nigeria, on the coast of Bight of Benin and part of the extensive Dahomey Basin. The state lies between latitude 6.2°N and longitude 2.45°E to 4.20° E (Lagos state Govt., 2018). Originally founded by the Aworis and Benin people, who named it Eko, the state is bounded to East and North by Ogun State, to South by the Atlantic Ocean and the West by the Republic of Benin (Ayein, Omojola, & Fasona, 2014). Covering a total area of 3577km<sup>2</sup>, it is currently ranked the fifth largest city in the world (Osei, Merem, & Yaro, 2014). Politically, the state is divided into 20 local government council wards and its administrative capital is Alausa Ikeja. The state is covering an area of 358,862 hectares or 3,577 sq. km. which represents 0.4% of Nigeria's territorial land mass of 923,773 sq. km.

Lagos State is essentially a Yoruba environment inhabited by its sub-nationality of Aworis and Ogus in Ikeja and Badagry Divisions respectively, with the Ogus being found mainly in Badagry and the Awori forming the indigenous population of Lagos where there are, nevertheless, other pioneer immigrant settlers – Edos, Saros, Brazilians, Kannike/Tapa, etc collectively called Lagosians but more

appropriately referred to as the Ekos. For Ikorodu and Epe Divisions, the local populations are mainly the Remos and Ijebus with pockets of Eko-Awori settlers along the entire State coastland and riverine areas. However, despite its Yoruba indigeneity, the State is a global socio-cultural melting pot attracting Nigerians, Africans and foreigners alike. The situation is attributable to its sound economic base, strategic maritime location and socio-political importance which induced a high rate of migration to the State.

The vegetation of Lagos state is swampy forest consisting of fresh water and mangrove, which are highly influenced by a double rainfall pattern which makes the environment a wetland region with an annual rainfall of 1400mm and 1800mm and a dry season between November and March. Lagos was once the capital of Nigeria and is considered the economic capital of Nigeria accounting for 60 percent of Nigeria's industrial and commercial establishment, 90 percent of its foreign trade and 80 percent of the country's total value of import and export (Aria, 1994; Mivulty, 1988). The original settlers spoke Yoruba, but with the state being the economic capital of Nigeria, people from other part of the country and other nations are migrating to the state for economic reasons. The population growth is the highest in the last ten years and the growth is estimated to be the highest ever. The state population is expected to grow at an estimated 4 percent annually for the next 20 years (Bilsborrow, 1998).

The State is also a tourist haven. Of Nigeria's over 700 km Atlantic sandy beaches, the State has the majority with its 180 km coconut-fringed Atlantic littoral which consists of several beaches rising to about 20 between Badagry in the west and Lekki in the east. Foremost among the State's beaches, which are glittering beauty of its aquatic splendour, are the following:



Bar Beach, Victoria Island	Atlas Cove, Apapa
Lekki Beach	Light House, Apapa
Maiyegun, Victoria Island	Kuramo Waters, Victoria Island
Alpha Beach, Eti-Osa Lekki	Hermitage Resort, Tiye, Ibeju-
Whispering Palms Resort, Iworo	Ibeshe, Ikorodu
Eleko/Akodo, Ibeju-Lekki	Suntan Resort, Sapo, Badagry
Tarwa Bay, Apapa	Topo Island, Badagry
Ogogoro Island	Eko Tourist Beach Resort, Akodo
Snake Island, Apapa	Gbethrome, Badagry
5 Divisions of the State	Monuments of different shades
La Campagne Tropicana Resort,	Okun Folu

Aside the above, the State is a tourist delight with regard to its historical and cultural engagements with early European explorers, merchants and innovators thus resulting in several monumental masterpieces (Lagos state Government, 2020).

According to the national coverage of crime, Lagos State has 180 percent crime rate, the state is the second most vulnerable state to kidnapping at 4.0 percent, twentieth to robbery, seventieth to physical assaults at 35.0 percent, fourth in theft of mobile phones at 55.0 percent and third in terms of car theft at 5.0 percent (CLEEN Foundation, 2017). Lagos is ranked as one of the states with very high crime rate. According to CLEEN Foundation, (2017) the annual crime rate in Lagos ranges from

12-21 percent for crime control, the state has 13 police areas command and a population of 29,122 police officers (Nigerian Police Force, 2016).

### **3.3 Population of the study**

The population of the study is made up of both male and female officers who make up the 13 formations of Lagos state police command. According to data provided by the office of the Public relations officer of the Lagos state police command, the population of officers stands at 29,122 as at 2016 (Nigerian Police Force, 2016). The choice of this population is because all the police officers are expected to use one form of police equipment or the other.

### **3.4 Sample Size**

The total sample size for the study stands at (1099) one thousand and ninety-nine (1099). This was derived from using the survey monkey sample size determinant technique at 95 percent confidence level and a margin of error of 2.9 percent. The sampling technique uses a sample formula and computer software for easy access and reduced error, the researcher made use of the computer software. Out of the 1099 questionnaires sent out, 1055 amounting to 96% return rate, was returned and subsequently used for analysis. The high return rate of the questionnaires is unconnected or might be attributed to the direct command issued by the Commissioner of Police to State Criminal Investigation Department and the importance attached to the study. The directive was made to officers of the command as requested in a letter given to the researcher by Sociology department, University of Calabar. A copy of the Commissioner's letter is attached in the appendix. Also, numbers of respondents were collected at the first meeting. Rapport was established to ensure compliance and the need for the study was also emphasized through periodic text messages.

### **3.5 Sampling Technique**

The cluster and purposive sampling technique was used to select the sample from the study area. Lagos state was stratified into 13 clusters according to the police areas command found in Lagos state. Cluster 1: A Lagos island area command, cluster 2: B Apapa area command, cluster 3: C Surulere area command, cluster 4: D Mushin area command, cluster 5: E Festac area command, Cluster 6: Ikeja Area command, Cluster 7: G Ogba area command, Cluster 8: H Ogudu area command, Cluster 9: J Elemoro area command, Cluster 10: K Morogbo area command, Cluster 11: L Ilashe area command, Cluster 12: M Idimu area command, Cluster 13: N Ijede area command. An Additional area command is in the pipeline to be called area M. This according to the Police public relation officer of the command is to allow for proper and adequate policing of the entire state. The number of Area command and the number of police post and station is highlighted in Table 3.2.

From these clusters, the purposive sampling technique was used in selecting 4 clusters from the 13 clusters. These four clusters were selected because they were in areas where crime is prevalent. Also, because it would be difficult for the researcher to study the whole of Lagos State within the period he is supposed to carry out this study and also the result derived from these four clusters can be used for generalization of the whole Lagos. The Clusters Selected is Cluster 1: Area A Lagos Island command, Cluster 4: Area D Mushin Division, Cluster 12: Area M Idimu command and Cluster 13: Area N Ijede command. From the four Clusters selected, the researcher then used the purposive sampling technique to select five police divisions/ stations from each of the area command. The divisions were selected because these divisions were the only divisions where the researcher was given easy access to respondents by the Divisional Police Officers. The selected divisions are

highlighted in table 3. 2. From the selected division, the researcher then used the purposive sampling technique to select 55 respondents from 19 divisions and 54 respondents from 1 division. This was done because it is difficult to find all the officers stationed in a division on ground at once. So, the researcher distributed to the officers found at every of his visits.

### **3.6 Source of data**

Data used for this study were obtained from both primary and secondary sources. The primary sources consist of first-hand information and were obtained from respondents through the use of questionnaire and key informant interview (KII). The secondary source includes textbooks, journals, magazines, unpublished articles and internet sources.

### **3.7 Instrument of data collection**

The instrument that was used in collecting data from respondents was the questionnaire and key informant interview (KII) guide.

#### **3.7.1 Questionnaire**

According to Pollit and Hungler (1997), the questionnaire is a method of gathering data from a sample population about attitudes, knowledge, beliefs and feelings. The questionnaire adopted for this study was a structured questionnaire scored on a 4-point Likert scale. A copy of this is highlighted in appendix. The questionnaire was divided into three sections. Section A comprised of demographic data of the respondents, such as age, sex, marital status, educational level, and police unit status in the command. Section B consisted of 20-items designed to elicit information on the independent variables under study. Section C consists of 6-items designed to elicit information on the dependent variable.

### **3.7.2 Key informant interview (KII)**

A structured key interview guide was also developed and used to collect important information on the variables under study. A copy of this is highlighted in appendix. The interview was conducted using interview guide, which contained the list of issues that are under study. The researcher conducted the interview on key officers of the police force as directed by the state Command and community leaders.

### **3.8 Validity of research instrument**

The researcher's supervisors and social research experts from the department of Sociology were given the research instrument for data collection to scrutinize so as to ascertain the applicability of the instrument to the research objectives and variables. The questionnaires were assessed in line with cognitive competence of the respondents and the totality of the itemized section was vetted.

### **3.9 Reliability of the research instrument**

Reliability refers to the degree of consistency or accuracy with which an instrument measures the attribute it is designed to measure (Polit & Hungler 1997; Uys & Basson 1991). If a study and its results are reliable, it means that the same results would be obtained if the study were to be replicated by other researchers using the same method. This study adopted the Cronbach alpha procedure to test the reliability of the instrument. The instrument was trail tested on 20 respondents who were part of the actual sample and subjected to Cronbach alpha reliability test. Each of the sub-scale of the instrument was adjudged to be valid and reliable before being approved and used for this study. The reliability coefficients range from 0.79 to 0.91.

### **3.10 Method of data collection**

The data for the study were collected by the use of questionnaire and semi-structured interview. To facilitate the process of collecting data, eight research

assistants who are residents of the area of study were recruited and trained by the researcher. These research assistants ensured the co-operation of the respondents. The research assistants were properly briefed on the objectives of the study. The questionnaires were administered over the course of four months. The researcher grouped the research assistants into four groups of two, with the researcher supervising each of the group. The researcher with a police officer assigned to him from the police headquarters to assist him made it a duty to visit each police divisions on the day of field visits to supervise the works of the research assistants. Each group of research assistant was assigned to each selected division. Interviews were conducted with officers of the Police Force, and community leaders of the selected areas. The community leaders interviewed was to triangulate the response of the respondents. Appointments were booked for the interview and they were told the objectives of the study. This ensured their cooperation. It is important to note that the researcher conducted the interview assisted by trained research assistants. The researcher and assistants recorded the interview by means of note taking.

### **3.11 Method of data analysis**

The data collected through questionnaire were tabulated and analysed using such statistical methods as frequency distribution tables and simple percentages. These were carried out using SPSS (Statistical Package for Social Sciences). The data collected through interview were analysed qualitatively: the information generated in the research were examined in relation to the research objectives. The hypotheses were tested using Simple Linear Regression.

#### **(i) Hypothesis one**

Customized Patrol vehicles have no significant positive impact on crime control in Lagos State, Nigeria.

Independent variable: Customized Patrol vehicles

Dependent variable: Crime control

Statistical tool: Linear Regression

(ii) Hypothesis two

The availability of communication gadget does not have a significant positive effect on crime control in Lagos State, Nigeria.

Independent variable: Communication gadget

Dependent variable: Crime control

Statistical tool: Linear Regression

(iii) Hypothesis three

Adequate arms and ammunition have no significant positive impact on crime control in Lagos State, Nigeria.

Independent variable: Adequate arms and ammunition

Dependent variable: Crime control

Statistical tool: Linear Regression

(iv) Hypothesis four

Closed-Circuit Television Cameras have no significant positive effect on crime control in Lagos State, Nigeria.

Independent variable: Closed-Circuit Television Camera

Dependent variable: crime control

Statistical tool: Linear Regression

### 3.12 LIMITATIONS OF THE STUDY

This study has potential limitations. The effects of the ravaging Covid19 pandemic are still very fresh in our memories. This study was carried out majorly during the height of the pandemic crisis. Restrictions and strict adherence to Covid19 protocols/guidelines led to loss of valuable time and financial constraints as face masks and sanitizers were bought consistently to protect the researcher and his assistants.

Another constraint was the issue of conflict arising from people perception of the police. The recruited assistant researcher had to be convinced before they agreed to relate with police officers due to their innate perceived opinion of the force.

Getting access to the police command in Lagos was also a herculean task as the study was carried out when security challenges in the country was at its peak. For instance, the study population was given at 29,122 which is 2016 statistics of the police personnel. The police force refused to divulge the present number of police personnel in the state citing security risk.

Having to gather information from the entire Lagos state had huge effect on the lean purse of the researcher as well as time consuming. The study was delayed as a result of this.

Furthermore, the death of the former Station Officer of the Lagos State Provost Command, Alh. Bashorun was a great blow to this study. He facilitated a better and conducive platform for this study. His death prevented the researcher from getting into the police Archives as promised but the information given before his untimely death were substantial and sacrosanct.



The nature of the traffic jam in the state is also a problem. Going out every day with log jam taking 50% of time was troubling and worrisome. Overall, the researcher did his best to move beyond these challenges for an unbiased assessment of the study.

**Table 3.1**  
Crime Statistics for Lagos

S/N	Crime Rate Statistics 2017 to 2020	Percentage
1	home burglary and theft	62.10
2	Mugging	68.71
3	Car theft	60.42
4	Theft from parked cars	65.41
5	Attacks and communal clashes	60.78
6	Homophobic, religious and ethnic attacks	47.28
7	Drug addiction	64.49
8	property crimes such as vandalism and theft	69.64
9	assault and armed robbery	72.45
10	corruption and bribery	87.66
11	Homicide	38.32

Source: NUMBEO (2020).

**TABLE 3.2**

Showing Police Area Command and Police Divisions/Stations in Lagos Command

<i>Area Command</i>	<i>Location</i>	<i>Division</i>
Area A Command	Lagos Island	Victoria Island Division Adeniji Adele Division Onikan Division Ebute Ero Division Dolphin Estate Division Ikoyi Division Lion Building Division
Area B Command	Apapa	Ajegunle Division Apapa Division Trinity Division Ijora Badia Tolu Division Layeri Division Amukoko Division Kirikiri Division
Area C Division	Surulere	Dento Police Division Yaba Police Division Sabo Police Division Bode-Thomas Police Division Orile Police Division Surulere Police Division Ajuda Police Division Iponri Police Division
Area D Division	Mushin	Itire Division Ijeshatedo Division Alakara Division Ajao Estate Division Ilasamaja Division Ajo-Okota Division Aswani Division Mushin Division Isolo Division Ejigbo Division
Area E Command	Festac	Festac Division Ojo Division Ttrade Fair Division Okokomaiko Division Orireke Division Satelite Division

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Area F Command	Ikeja	Ikeja Division Makirile Division Akinpelu Division Ilupeju Division Alausa Division Man Centre Division Ojodu Division Shogurle Division Mosafejo Division
Rea G Command	Ogba	Elere Division Isokoko Division Dopemu Division Pen Cinnema Division Iju Division Alakuko Division Oko-Oba Division Abattoir Division Ojokoro Division
Area H Command	Ogudu	Bariga Division Ketu Division Isheri Division Shomolu Division Onipanu Divisdion Ogudu Division Alade Division Oworonshoki Division Anthony Division Alapere Division Ifako Division
Area J Command	Elemoro	Langbasa Division Maroko Division Elemoro Division Ajah Division Ilasan Division Epe Division Ogombo Division Akodo Divbision
Area K Command	Morogbo	Morogbo Division Sere Division Ilemba Division Badagry Division Ishasi Division Ijanikin Division
Area L Command	Ilashe	Igbologun Division Osolu Kingdom Division

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		Tarkwa Bay Division Ibese Division Irede/Ikanre Division Acpol Lima Division
Area M Command	Idimu	Idimu Division Oke-Odo Division Ayobo Division Igando Division Ipuja Division Gowon Estate Division Meira Division Isheri Division Shasha Division Ikotun Division
Area N Command	Ijede	Owutu Division Oluwole Agbowe Division Ikorodu Division Irota Division Owode Division Ijede Division Shagamu Road Division Ipakodo Division

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*Source: Lagos Police command, Lagos*

**TABLE 3.3**

Showing sample selected from each police division

S/N	Area Command	Police Division	Sample selected
1.	Area A: Lagos Island Command	Onikan Division	54
		Ebutte Ero Division	55
		Lion Building Division	55
		Dolphin Estate Division	55
2	Area D: Mushin Command	Aswani Division	55
		Itire Division	55
		Mushin Division	55
		Isole Division	55
3	Area M: Idimu Command	Idimu Division	55
		Igando Division	55
		Isheri Division	55
		Oke-odo Division	55
4.	Area N: Ijede Command	Ikorodu Division	55
		Owode Division	55
		Shagamu Road Division	55
		Owutu Division	55

Source: Field Survey 2020

**TABLE 3.4**  
**Cronbach alpha reliability estimate of variables**

Variable	No. of items	Mean	SD	A
customized patrol vehicles	5	18.10	1.18	.78
communication gadgets	5	19.15	1.02	.81
sufficient arms and ammunition	5	18.06	1.41	.86
closed-circuit television camera	5	17.21	2.42	.76
crime control	6	24.21	3.45	.87
Overall scale	26	78.82	3.54	.90

**Source: Field work**

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.1 Data presentation

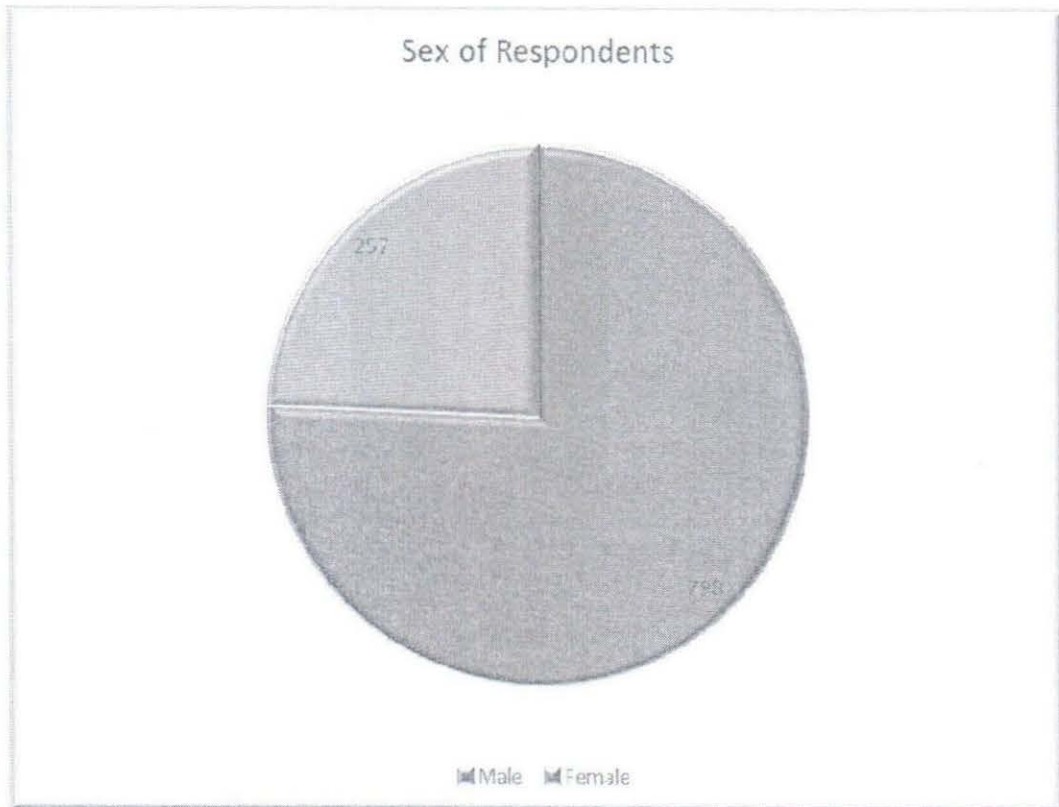
In this section, the main variables of the study are identified, their mean and standard deviation calculated. The Statistical package for social sciences (SPSS) version 21 was used to analyze data. Percentages and graphs were first used to analyze the demographic data (sex; age; marital status; educational qualification, occupation) and the results are presented in table 4.1 with graphical illustration in figure 1 through 5 .While, descriptive statistics involving mean and standard deviation was used for other variables and presented in table 4.2 The independent variables in the study are; Customized Patrol, availability of communication gadgets, adequate arms and ammunition, and Closed-Circuit Television Camera. While the dependent variable is crime control in Lagos State, Nigeria. Out of the 1,099 copies of questionnaires administered, 1,055 were recovered representing 96.0 per cent of the distributed instruments and were therefore used for the analysis.

Out of the 1,055 respondents used in this study, 798 representing 75.64 per cent were male while 257 respondents representing 24.36 per cent were female. This result shows that, the area under study host more male than female, a graphical presentation is reported in figure 1. Respondents' description based on age reveal that, most of the respondents 496 representing 47.01 per cent are between 26 and 35 years; next in the list is 321 representing 32.43 per cent are those between 36 and 45 years; followed by 123 representing 11.66 per cent of respondents between 18 and 25 years while 115 representing 10.90 per cent of the respondents are 46 years and above. A graphical illustration is presented in figure 2. Respondents' description based on marital status reveal that out of 1,055 respondents, 555 representing 53.0 per cent

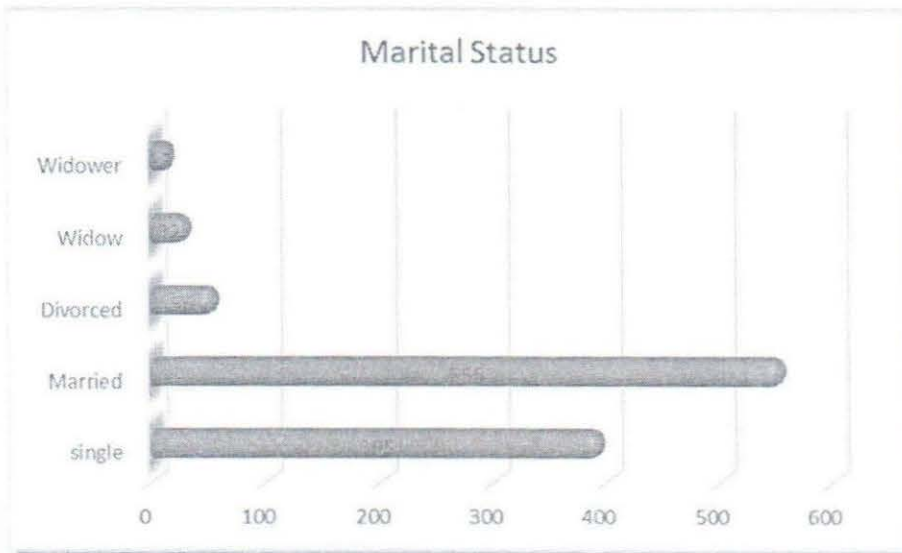


respondents are married, 395 representing 37.0 per cent are single; 56 of the respondents are divorced; 32 representing 3.0 per cent are widows, while 17 representing 2 per cent are widowers. A graphical illustration is presented in figure 3.

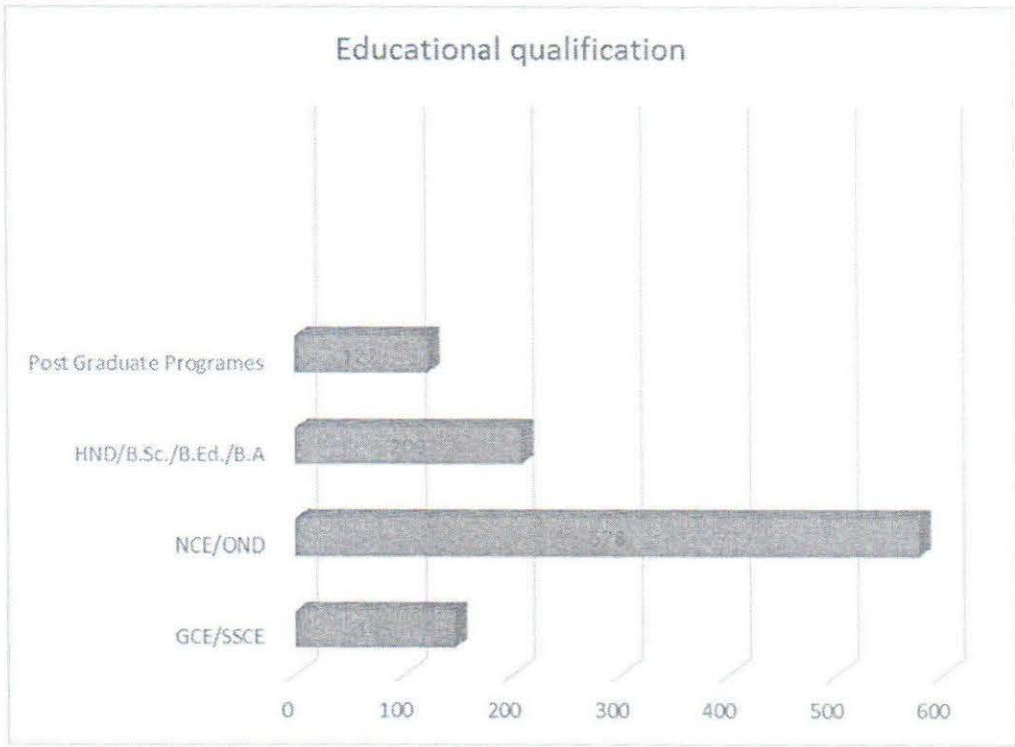
The distribution of respondents' base on educational qualification shows that, most of the respondents' 578 representing 55.0 per cent were GCE/SSCE holders; this shows that the strength of the Police lies on the rank and file officer. Next in the list was 209 representing 20 per cent were HND/B.Sc./B.Ed./B.A holders; 122 respondents representing 11.0per cent were Post Graduate degree holders. 146 representing 14.0 per cent were NCE/OND. A graphical illustration is presented in figure 4. The distribution of respondent's base on unit status of officers revealed that, out of 1,055 respondents, 414 (39.0%) respondents are attached with anti-cultism and kidnapping unit, 203 (19.0%) respondents are mobile officers, 161 (15.0%) were anti-robbery, 155 (15.0%) respondents are serving under the anti-robbery unit and 122 (12.0%) are of special fraud unit. A pictorial illustration was presented in figure 4. A graphical illustration is presented in figure 5.



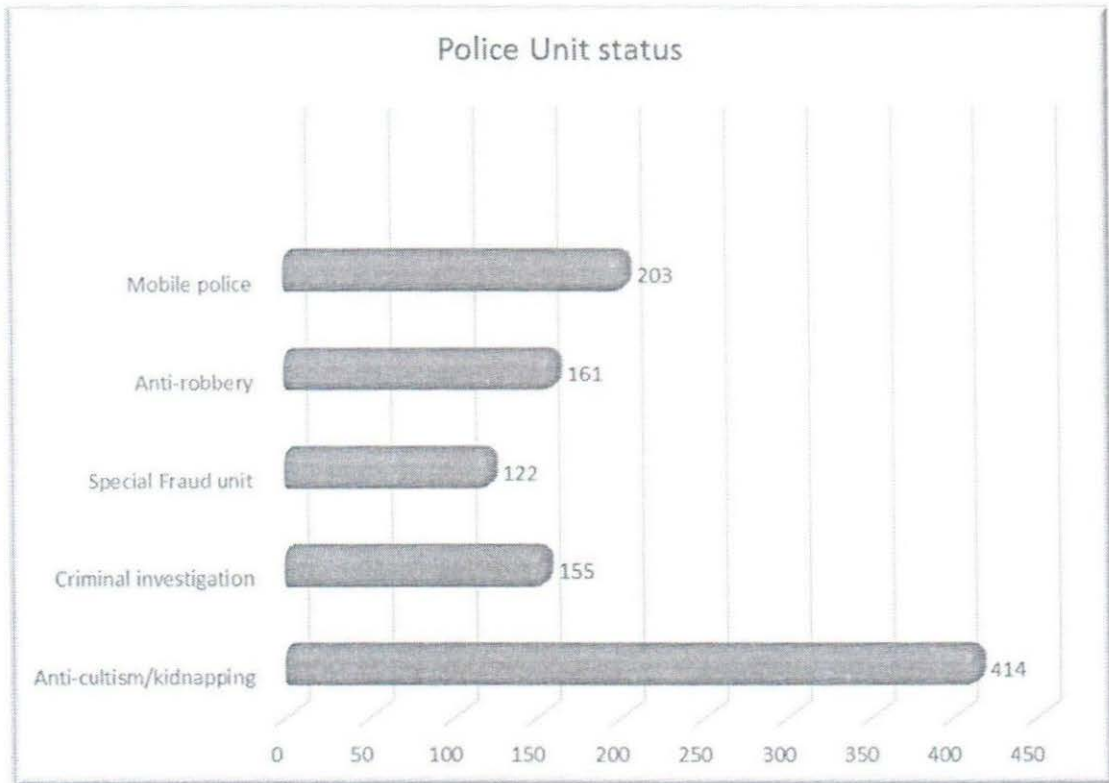
**Figure 1:**  
Graphical illustration of respondents' sex distribution



**Figure 3:**  
Graphical illustration of respondents' marital status



**Figure 4:**  
Graphical illustration of respondents' education level



**Figure 5:**  
**Graphical illustration of respondents' Police Unit status**

## **4.2 Presentation of Results**

### **4.2.1 Research Question One**

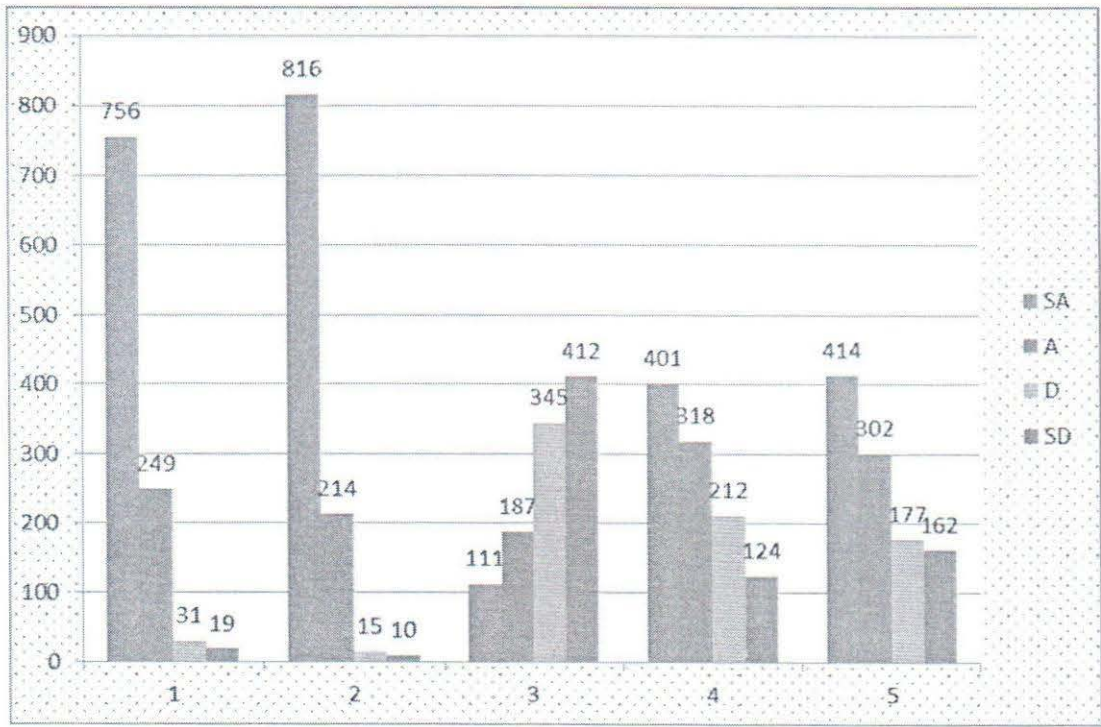
To what extent do customized patrol vehicles impact on crime control in Lagos state, Nigeria? Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.2.

**TABLE 4.2**

## Responses on Customized patrol vehicles

S/N	Items	SA	A	D	SD
1	Customized Patrol vehicles enhances the performance of the police	756 (71.65)	249 (23.60)	31 (2.93)	19 (1.80)
2	Customized Patrol vehicles allow the police to respond to emergencies quickly	816 (77.34)	214 (20.28)	15 (1.42)	10 (0.94)
3	Most of the police vehicles are efficiently maintained	111 (10.50)	187 (17.70)	345 (32.70)	412 (39.10)
4	With the help of customized patrol vehicles, officers of the Nigerian police force are able to control crimes in Lagos.	401 (38.00)	318 (30.14)	212 (20.09)	124 (11.75)
5	The customized police vehicles are not as equipped when compared to those of other nations	414 (39.24)	302 (28.62)	177 (16.77)	162 (15.35)

Source: Field Work, 2020



**Figure 6:**  
**Graphical illustration of responses to patrol vehicles**



#### **4.2.2 Research Question Two**

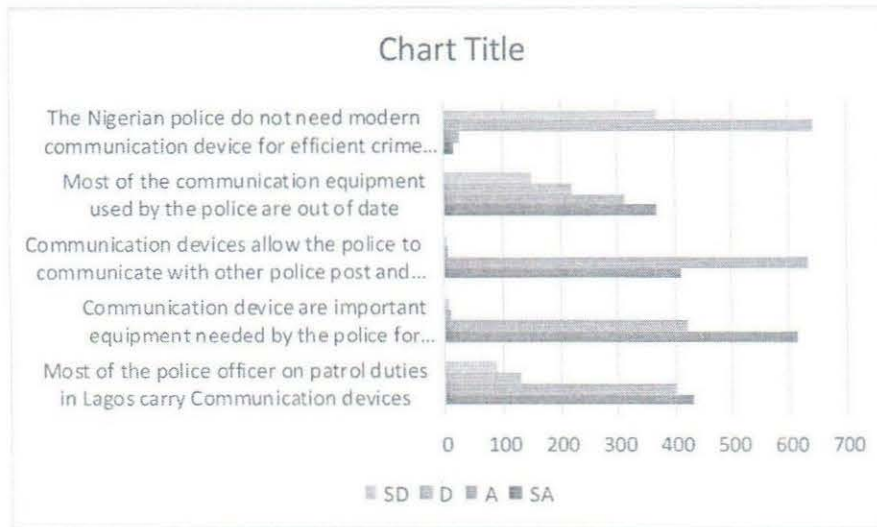
How does the availability of communication gadgets affect crime control in Lagos state, Nigeria? Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.3.

**Table 4.3**

Responses on communication gadgets

S/N	Items	SA	A	D	SD
6	Most of the police officers on patrol duties in Lagos carry Communication devices	433 (41.04)	401 (38.00)	131 (12.41)	90 (8.53)
7	Communication devices are important equipment needed by the police for efficient crime control	616 (58.38)	422 (40.00)	11 (1.04)	6 (0.56)
8	Communication devices allow the police to communicate with other police posts and officers in the line of duty	411 (38.95)	633 (60.00)	8 (0.75)	3 (0.28)
9	Most of the communication equipment used by the police are out of date	368 (34.88)	313 (29.66)	222 (21.04)	152 (14.40)
10	The Nigerian police does not need modern communication device for efficient crime control in Lagos.	16 (1.51)	26 (2.46)	643 (60.94)	370 (35.07)

Sources: Fieldwork, 2020



**Figure 7**

**Graphical illustration of responses on communication gadgets**

### **4.2.3 Research Question Three**

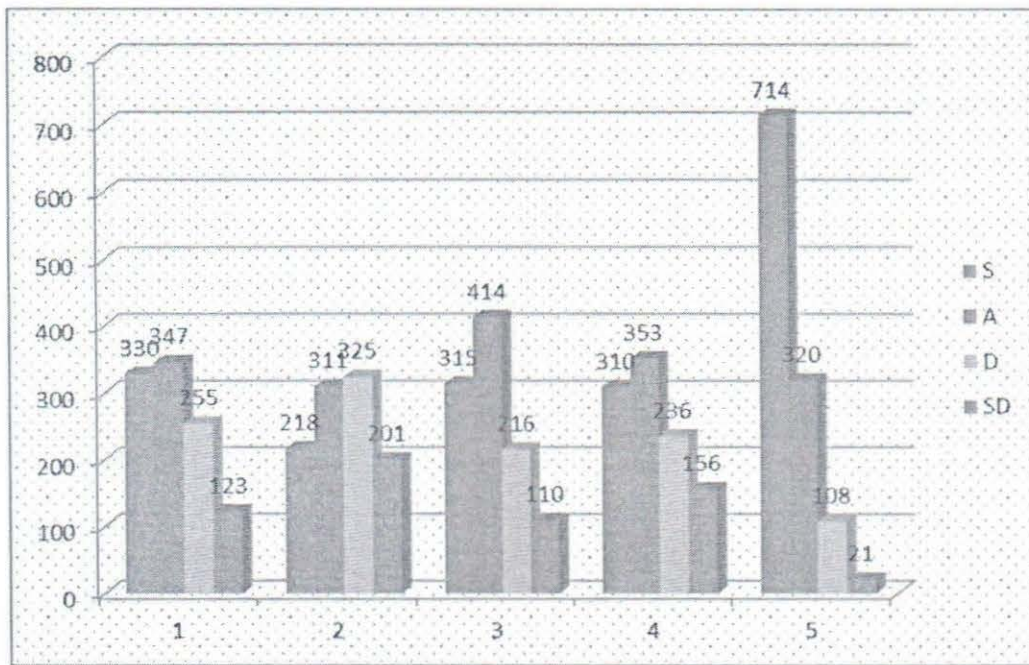
What is the effect of arms and ammunition on crime control in Lagos state, Nigeria? Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.4.

**TABLE 4.4**

## Responses on arms and ammunition

S/N	Items	S	A	D	SD
11	The Nigerian police are well equipped when it comes to arms and ammunition	330 (31.27)	347 (32.89)	255 (24.17)	123 (11.65)
12	The arms and ammunition used by the police are better than the ones used by criminals	218 (20.66)	311 (29.47)	325 (30.80)	201 (19.05)
13	The kind of arms and ammunition that police used hinders them from effectively controlling crimes in Lagos	315 (29.85)	414 (39.24)	216 (20.47)	110 (10.42)
14	Criminals commit crimes with the fear of being attacked or captured because of the kind of arms and ammunitions that the police use	310 (29.38)	353 (33.45)	236 (22.36)	156 (14.78)
15	There is need for modern arms and ammunitions for the police to be able to combat crime efficiently	714 (67.67)	320 (30.33)	108 (10.23)	21 (1.99)

Sources: Fieldwork, 2020



**Figure 7:**  
Graphical illustration of responses on arms and ammunition

#### **4.2.4 Research Question Four**

How does the availability of closed-circuit television cameras affect crime control in Lagos state, Nigeria? Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.5

**Table 4.5**

Responses on close circuit camera

S/N	Items	SA	A	D	SD
16	Close circuit television Cameras is one of the most modern security equipment invented	568 (53.83)	418 (39.62)	45 (4.26)	24 (2.27)
17	CCTV make people feel safer	488 (46.25)	490 (46.44)	47 (4.45)	30 (2.84)
18	CCTV surveillance within establishments has helped reduce the actual risk of being targeted by criminals?	601 (56.96)	412 (39.05)	32 (3.03)	10 (0.94)
19	Crime has reduced in the Lagos as a result of CCTV cameras installed in key establishments.	355 (33.64)	468 (44.36)	145 (13.74)	87 (8.24)
20	The negative effect of CCTV is that it impinges on right to privacy.	477 (45.21)	482 (45.68)	64 (6.06)	32 (3.03)

**Sources: Fieldwork, 2020**



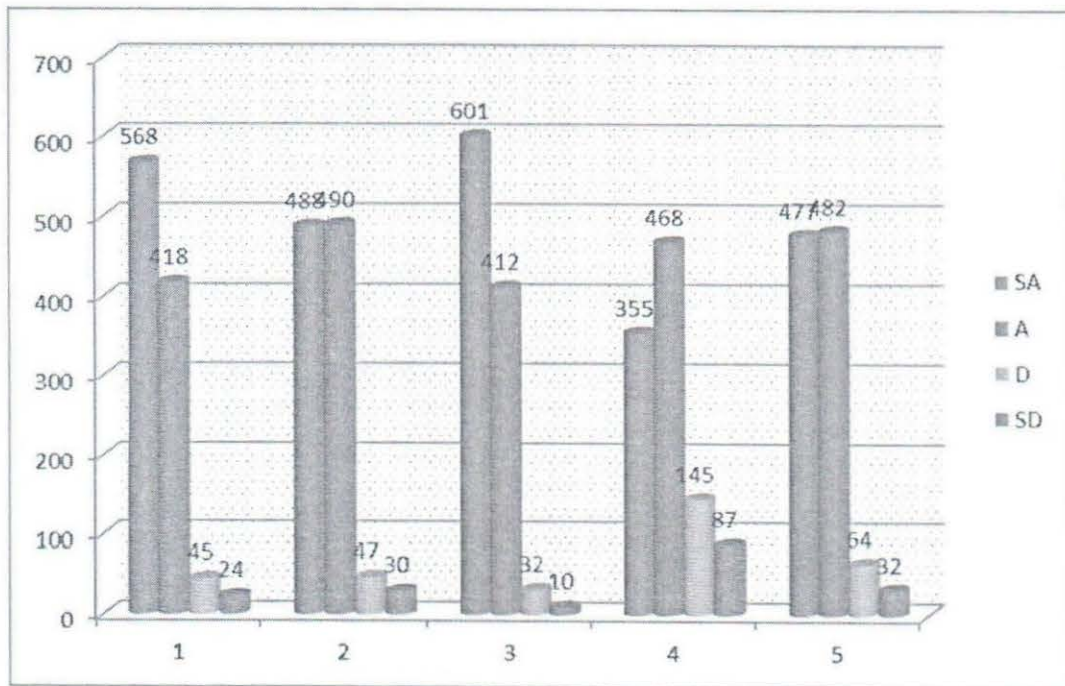
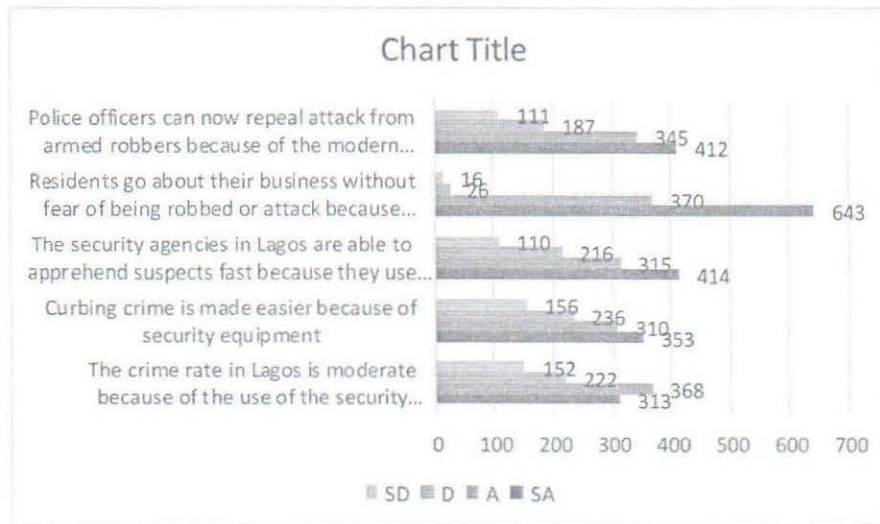


Figure 8:  
Graphical illustration of responses on CCTV

**TABLE 4.6**  
Responses on crime control

S/N	Items	SA	A	D	SD
21	The crime rate in Lagos is moderate because of the use of the security equipment available for police.	313 (29.66)	368 (34.88)	222 (21.04)	152 (14.40)
22	Curbing crime is made easier because of security equipment	353 (33.45)	310 (29.38)	236 (22.36)	156 (14.78)
23	The security agencies in Lagos are able to apprehend suspects fast because they use modern security equipment	414 (39.24)	315 (29.85)	216 (20.47)	110 (10.42)
24	Residents go about their businesses without fear of being robbed or attacked because they know that the presence of modern equipment used by the police will help report crime committed on them.	643 (60.94)	370 (35.07)	26 (2.46)	16 (1.51)
25	Police officers can now repeal attacks from armed robbers because of the modern equipment they use	412 (39.10)	345 (32.70)	187 (17.70)	111 (10.50)

Sources: Fieldwork, 2020



**Figure 9:**

**Graphical illustration of responses on crime control**

**TABLE 4.7**

Descriptive statistics of variables

Variables	N	Mean	Std. Deviation
Customized Patrol vehicle	1055	10.47632	3.45432
Communication gadgets	1055	9.52819	3.73805
Arms and ammunition	1055	11.22742	3.48207
Closed-Circuit Television Camera	1055	10.23512	3.63510
Crime control	1055	14.80167	5.33451
Valid N (list wise)	1055		

### 4.3 Data Analysis (Test of Hypotheses)

#### 4.3.1 Hypothesis One

Customized Patrol vehicles have no significant positive impact on crime control in Lagos state, Nigeria. The independent variable in this hypothesis is Customized Patrol vehicles while the dependent variable is crime control. Both variables were measured continuously and inferential with statistics involving Simple linear regression statistics was used to test the hypothesis at 0.05 level of significance and the result is presented in table 4.8.

The result of analysis as presented in table 4.8 revealed R-value of 0.315<sup>a</sup>. The correlation coefficient is a standardized measure of an observed degree of relationship between variables, it is a commonly used measure of the size of an effect, and that values of  $\pm 0.1$  represent a small effect,  $\pm 0.3$  is a medium effect and  $\pm 0.5$  is a large effect. Also, the  $R^2$  -value of .067 imply that 67% of total variance is accounted for by predictor variable (Customized Patrol vehicles). Furthermore, the regression ANOVA revealed that the  $F(1, 1054) = 21.310$ ;  $p < 0.05$ , is significant. Thus, the null hypothesis was rejected. This implies that there is a linear association (contribution) of the predictor variable (Customized Patrol vehicles) on crime control. The adjusted  $R^2$  (.066) shows some shrinkage of the unadjusted value (.067) indicating that the model could be generalized on the population. Based on the result, it was concluded that Customized Patrol vehicles significantly contribute to crime control.

**TABLE 4.8**  
Summary of simple linear regression analysis of the contribution of Customized  
Patrol vehicles to crime control

Variables	Mean	Std. Deviation						
Customized Patrol vehicles	10.47632	3.45432						
Crime control	14.80167	5.33451						
Model	Sum of Squares	df	Mean Square	F	R	R Square	Adjusted R Square	Sig
Regression	21.215	1	21.215	21.310	.315 <sup>a</sup>	.067	.066	.000 <sup>a</sup>
Residual	2072.545	1053	5.301					
Total	2093.761	1054						

Significant at 0.05 level; df = 1053

### 4.3.2 Hypothesis Two

The availability of communication gadget does not have a significant positive effect on control in Lagos state, Nigeria. The independent variable in this hypothesis is availability of communication gadget, while the dependent variable is crime control. Both variables were measured continuously and inferential with statistics involving Simple linear regression statistics which was used to test the hypothesis at 0.05 level of significance and the result is presented in table 4.9.

The result of analysis as presented in table 4.9 revealed R-value of 0.345<sup>a</sup>. The correlation coefficient is a standardized measure of an observed degree of relationship between variables, it is a commonly used measure of the size of an effect, and that values of  $\pm 1$  represent a small effect,  $\pm 3$  is a medium effect and  $\pm 5$  is a large effect. Also, the  $R^2$  -value of .069 imply that 69% of total variance is accounted for by predictor variable (communication gadgets). Furthermore, the regression ANOVA revealed that the  $F(1, 1054) = 26.421$ ;  $p < 0.05$ , is significant. Thus, the null hypothesis was rejected. This implies that there is a linear association (contribution) of the predictor variable (communication gadgets) on crime control. The adjusted  $R^2$  (.068) shows some shrinkage of the unadjusted value (.069) indicating that the model could be generalized on the population. Based on the result, it was concluded that availability of communication gadgets significantly contribute to crime control.

**TABLE 4.9**

Summary of simple linear regression analysis of the contribution of availability of communication gadget to crime control

Variables	Mean	Std. Deviation						
Communication gadgets	9.52819	3.73805						
Crime control	14.80167	5.33451						
Model	Sum of Squares	df	Mean Square	F	R	R Square	Adjusted R Square	Sig
Regression	141.063	1	120.398	26.421	.345 <sup>a</sup>	.069	.068	.000 <sup>a</sup>
Residual	823.934	1053	2.972					
Total	964.997	1054						

Significant at 0.05 level; df = 1053



### 4.3.3 Hypothesis Three

Adequate Arms and ammunition have no significant positive impact on crime control in Lagos state, Nigeria. The independent variable in this hypothesis is adequate arms and ammunition, while the dependent variable is crime control. Both variables were measured continuously and inferential with statistics involving Simple linear regression statistics which was used to test the hypothesis at 0.05 level of significance and the result is presented in table 4.10.

The result of analysis as presented in table 4.10 revealed R-value of 0.215<sup>a</sup>. The correlation coefficient is a standardized measure of an observed degree of relationship between variables, it is a commonly used measure of the size of an effect, and that values of  $\pm 0.1$  represent a small effect,  $\pm 0.3$  is a medium effect and  $\pm 0.5$  is a large effect. Also, the  $R^2$ -value of .048 imply that 48% of total variance is accounted for by predictor variable (adequate arms and ammunition). Furthermore, the regression ANOVA revealed that the  $F(1, 1054) = 11.361$ ;  $p < 0.05$ , is significant. Thus, the null hypothesis was rejected. This implies that there is a linear association (contribution) of the predictor variable (adequate arms and ammunition) on crime control. The adjusted  $R^2$  (.045) shows some shrinkage of the unadjusted value (.048) indicating that the model could be generalized on the population. Based on the result, it was concluded that availability of adequate arms and ammunition significantly contribute to crime control.

**TABLE 4.10**

Summary of simple linear regression analysis of the contribution of adequate arms  
and ammunition to crime control

Variables	Mean	Std. Deviation						
Arms and ammunition	11.22742	3.48207						
Crime control	14.80167	5.33451						
Model	Sum of Squares	df	Mean Square	F	R	R Square	Adjusted R Square	Sig
Regression	29.965	1	29.965	11.361	.215 <sup>a</sup>	.048	.045	.001 <sup>a</sup>
Residual	887.547	1053	2.270					
Total	917.511	1054						

Significant at 0.05 level; df = 1053

#### 4.3.4 Hypothesis Four

Closed-Circuit Television Camera have no significant positive effect on crime control in Lagos state, Nigeria. The independent variable in this hypothesis is Closed-Circuit Television Camera, while the dependent variable is crime control. Both variables were measured continuous and inferential with statistics involving Simple linear regression statistics which was used to test the hypothesis at 0.05 level of significance and the result is presented in table 4.11.

The result of analysis as presented in table 4.11 revealed R-value of 0.377<sup>a</sup>. The correlation coefficient is a standardized measure of an observed degree of relationship between variables, it is a commonly used measure of the size of an effect, and that values of  $\pm 0.1$  represent a small effect,  $\pm 0.3$  is a medium effect and  $\pm 0.5$  is a large effect. Also, the  $R^2$ -value of .054 imply that 54% of total variance is accounted for by predictor variable (Closed-Circuit Television Camera). Furthermore, the regression ANOVA revealed that the  $F(1, 1054) = 21.345$ ;  $p < 0.05$ , is significant. Thus, the null hypothesis was rejected. This implies that there is a linear association (contribution) of the predictor variable (Closed-Circuit Television Camera) on crime control. The adjusted  $R^2$  (.051) shows some shrinkage of the unadjusted value (.054) indicating that the model could be generalized on the population. Based on the result, it was concluded that availability of Closed-Circuit Television Camera significantly contribute to crime control.

**TABLE 4.11**

Summary of simple linear regression analysis of the Closed-Circuit Television Camera to crime control

Variables	Mean	Std. Deviation						
Closed-Circuit Television Camera	10.23512	3.63510						
Crime control	14.80167	5.33451						
Model	Sum of Squares	df	Mean Square	F	R	R Square	Adjusted R Square	Sig
Regression	29.732	1	29.732	21.345	.377 <sup>a</sup>	.054	.051	.001 <sup>a</sup>
Residual	1002.197	1053	2.563					
Total	1031.929	1054						

Significant at 0.05 level; df = 1053

#### **4.4 Summary of Findings**

- (i) Customized Patrol vehicles have significant positive impact on crime control in Lagos state, Nigeria.
- (ii) The availability of communication gadgets does have significant positive effect on control in Lagos state, Nigeria.
- (iii) Adequate Arms and ammunitions have significant positive impact on crime control in Lagos state, Nigeria.
- (iv) Closed-Circuit Television Cameras have significant positive effect on crime control in Lagos state, Nigeria.

#### **4.5 Discussion of Findings**

##### **4.5.1 Customized Patrol vehicles and crime control**

The result from the analysis of the first hypothesis revealed that there is a significant positive impact between Customized Patrol vehicles and crime control in Lagos East Senatorial District, Nigeria. This result is so because the analysis as presented in table 4.8 revealed R-value of 0.315<sup>a</sup>. Also, the R<sup>2</sup>-value of .067 imply that 67% of total variance is accounted for by predictor variable (Customized Patrol vehicles). Furthermore, the regression ANOVA revealed that the F (1, 1054) = 21.310; p < 0.05, is significant. This implies that there is a linear association (contribution) of the predictor variable (Customized Patrol vehicles) on crime control. The adjusted R<sup>2</sup> (.066) shows some shrinkage of the unadjusted value (.067) indicating that the model could be generalized on the population. This result means that Customized Patrol vehicles significantly contribute to crime control. The result also implies that the availability of customized patrol vehicles for the Nigerian security agencies would help them in curbing crime in the study area. Results also revealed that the availability of customized vehicles enhances the performance of the

Nigerian security agencies in carrying out their duties, as well as respond to emergencies quicker.

The researcher carried out key informant interview to ascertain the impact of customized patrol vehicle on crime control. The researcher personally carried out each of the interview session, with the aid of a note pad and tape recorder. Analysis of the data was done thematically using content analysis. The Public Relations Officer of Lagos state Police Command was interviewed on the availability of customized patrol vehicles. On the availability of patrol vehicles for police duties. In his own words;

*“The Lagos State Government set up the security trust Fund to be managed by private individuals in the state towards adequately providing the security agents tools and such that would improve crime control and police efficiency. This board was set up with the aim of sourcing for funds that will help provide those necessary supports that will aid the police in carrying out their duties. The security trust fund provides those necessary equipment that the police need and this includes patrol vehicles”.*

On how the different police stations and police posts get the patrol vehicle. He reported that:

*“There are thirteen area commands in Lagos State. Each police station or post that needs a patrol vehicle sends their request through their Divisional police officer to their area headquarters. The area command passes the request to the state command, which then sends to the board of the security trust fund. Who after reviewing the request then decides if the request is valid. If the board feels there is a need for it. It provides the vehicles”.*

On how well equipped the vehicles are to fight crime;

*“The vehicles are of the same standards with those in developed nations of the world, with all necessary equipment to help the officers who use them perform their duties properly”.*

The officer was also asked the deplorable state of some of the vehicles that most police used;

*“So the vehicles are used to chase criminals and in the process it has accidents, should the vehicles be thrown away? Obviously no. Such vehicles are repaired and then put on the road again. I bet you, the vehicles are still as effective as any new car”*

The researcher also interviewed the Station officer of the command in Ikorodu Local government Area. When asked about the rate of crime in the area. He argued that youth restiveness, cult and gang related violence is a common occurrence in the area. That 60 percent of male youths in the area belong to different cult groups causing trouble around the environment. When asked about the effectiveness of the police in the area. He said the police have been trying their best but the police cannot do all. When quipped on the topic under discussion. In his own words He argued:

*“The police have been helping to keep the environment safe. Every day, round the clock, you see their patrol vehicle patrolling the streets. Arresting any miscreants causing trouble in the environment”*

He further maintained that;

*“The patrol vans have been helpful. I personally know that if not for the patrols that the police have been making, the*

*rate of crime in the environment would be worse than it is now”.*

The findings from the Key informant interview are similar to the findings from the analysis of the quantitative data gathered from the study area. This result is supported by the findings of Philadelphia Police Department (2010) to determine the difference between foot patrol and customized patrol vehicles as a means of curbing crime. The findings revealed that there were noticeable differences in the activities conducted by foot and car patrol. Those using customized patrol vehicles, officers handled the vast majority of reported crime incidents. In the same vein, Odekunle (2005) in a presentation assumed that equipment needed by the police to combat and prevent crime is motorized patrol vehicles with sophisticated and adequate automatic weapons and communication gadgets. Also Balogun (1999) asserts that the objective of patrol vehicle is to disperse policemen in a way that will eliminate or reduce the opportunity for misconduct by law breakers and to increase the likelihood of apprehension, no doubt, as a strong deterrent effect on potential offenders.

#### **4.5.2 Communication gadget and crime control**

The result from the analysis of the second hypothesis revealed that the availability of communication gadget have significant positive effect on crime control in Lagos State, Nigeria. This result is so because the result of analysis as presented in table 4.9 revealed R-value of 0.345<sup>a</sup>. Also, the R<sup>2</sup> –value of .069 imply that 69% of total variance is accounted for by predictor variable (communication gadgets). Also, the R<sup>2</sup> –value of .069 imply that 69% of total variance is accounted for by predictor variable (communication gadgets). Furthermore, the regression ANOVA revealed that the  $F(1, 1054) = 26.421$ ;  $p < 0.05$ , is significant. This implies that there is a linear association (contribution) of the predictor variable (communication gadgets) on crime



control. The adjusted  $R^2$  (.068) shows some shrinkage of the unadjusted value (.069) indicating that the model could be generalized on the population. From this result it can be concluded that the availability of communication gadgets significantly contributes to crime control. This finding implies that the use of communication equipment help the police in fighting crime. Also, results from the data gathered from the field revealed that most of the police officers on patrol duty carry communication devices. Results also revealed that police are able to communicate with themselves, giving themselves valuable information on the situation of crime in the area. It also helps the command to communicate with officers in the field. It affords adequate monitoring of different sections of divisional headquarters under its domain and control.

The researcher carried out key informant interview to ascertain the impact of communication gadgets on crime control. The researcher personally carried out each of the interview session, with the aid of a note pad and a tape recorder. Analysis of the data was done thematically using content analysis. The researcher during the course of interviewing the Public Relations Officer of the Nigerian Police Force on the usage of communication gadgets? She maintained that nearly all police officers in the field are issued handheld transceiver (walkie talkie) for easy communication with their command and other officers in the field. In her own words:

*“Each patrol team is given a communication device (gadget) for easy communication with their patrol head. This allows them to have easy access to information. Also most of the police officers use their personal mobile phones to pass on information both within and among them”.*

She went further to argue;

*“The communication devices have helped the police in solving a lot of crimes in the study area. One of the most wanted gang leader was captured by a call put through by a person in the neighbourhood while trying to escape police arrest. The good individual called the Area N police command, whose officers transferred the call to the nearest patrol team in the area. The gang leader was then captured by the patrol team”. That the recent giant stride recorded by the force in the state on different criminal cases undertaken by different officers is largely due to effective communication and information sharing.*

The findings from the Key informant interview is similar to the findings from the analysis of the quantitative data gathered from the study area.

#### **4.5.3 Adequate arms and ammunition and crime control**

The result from the analysis of the third hypothesis revealed there is a significant positive impact between adequate arms and ammunitions and crime control in Lagos State, Nigeria. This result is so because the result of analysis as presented in table 4.10 revealed R-value of 0.215<sup>a</sup>. Also, the R<sup>2</sup>-value of .048 imply that 48% of total variance is accounted for by predictor variable (adequate arms and ammunition). Furthermore, the regression ANOVA revealed that the F (1, 1054) = 11.361; p < 0.05, is significant. This implies that there is a linear association (contribution) of the predictor variable (adequate arms and ammunition) on crime control. The adjusted R<sup>2</sup> (.045) shows some shrinkage of the unadjusted value (.048) indicating that the model could be generalized on the population. This result implies that when the police is well equipped with arms and other weapons, they will be able to adequately fight crime. Result from the data collected from the field revealed that though the police in the field is given weapons, most time when they meet other well-equipped criminals, they find it difficult to be effective.

The researcher carried out key informant interview to ascertain the impact of adequate arms and ammunitions on crime control. The Public Relations Officer of the Nigerian Police was interviewed. On the availability of weapons, she maintained that when it comes to arms, it is the federal government that provides the weapons that the police and other security agencies use. The security trust fund does not have the capacity to acquire weapons for the security agents. Acquisition of weapons is the exclusive preserve of the federal government. On the issue of criminals using better weapons than the Nigerian police in his words, she argued that;

*“The police is far better equipped to control crime and protect the Nigerian citizens. Let us be frank, who is winning the battle, the Police or the criminals? Occasional possession of good weapons does not amount to inability of the force to contain the threat. It cost the government a great fortune to purchase these weapons”.*

He further argued that;

*“But our Policemen are still able to carry out their duties effectively. If you check the crime rate in Lagos, it has reduced by 12 per cent in the first three quarters of 2019. That will tell you something. Our officers in the field are using the available weapons effectively”*

On the amount of weapons that an officer is allowed to carry, she argued;

*“That is classified, but all I can tell you is that the officers in the field have the resources to take on any kind of adversary they face”.*

The researcher also interviewed a male resident in Alapere Ketu in Kosofe Local Government Area. When quipped on the issue of the kind of weapons the police use to fight crime. He maintained;

*“The police carry very old weapons, the kind of weapons they can only use to threaten the life of poor people going about their businesses. When it comes to the main thing, you will see them scampering for safety. I will give you an example, the bank robbery in Isolo where the armed robbers were later apprehended. When it started and the police were called. They took the whole day to arrive and even when they came, they could not do anything until the Nigerian Army came with their superior weapons and fire power and chased the boys”.*

When asked what can be done to salvage the issue, the man argued;

*“What was the Nigerian government doing when countries were buying up the catchment of weapons stored by the Soviet Union? They stood by while other countries scrambled for them. You may say that those weapons are old, but they are better than what the Nigerian police are using”.*

He continued;

*“The Nigerian Government need to put their greed aside and use the money meant for the purchase of weapons to buy weapons instead of using the money to line their pockets”.*

The finding from the Key informant interview is similar to the findings from the analysis of the quantitative data gathered from the study area. The finding is supported by that of Makinde (2014), who avers that for proficient handling of armed bandits the police force needs to be adequately reinforced with sophisticated weapons such as arms and ammunitions, teargas, hand/blast grenade, long/short range teargas, bulletproof vest cartridges etc. The Lagos Police Force has inadequate arms, logistics,

telecommunication gadgets, and transportation facilities. Kasumu (2017) is also of the opinion that the ineffectiveness and inefficiency is directly a consequent of lack of inadequate arms and ammunitions that can deter and apprehend criminals.

#### 4.5.4 Closed-Circuit Television Camera and crime control

The result from the analysis of the fourth hypothesis revealed that Closed-Circuit Television Camera have significant positive effect on crime control in Lagos State, Nigeria. This result is because the result of analysis as presented in table 4.11 revealed R-value of 0.377<sup>a</sup>. Also, the R<sup>2</sup> -value of .054 imply that 54% of total variance is accounted for by predictor variable (Closed-Circuit Television Camera). Furthermore, the regression ANOVA revealed that the  $F(1, 1054) = 21.345; p < 0.05$ , is significant. This implies that there is a linear association (contribution) of the predictor variable (Closed-Circuit Television Camera) on crime control. The adjusted R<sup>2</sup> (.051) shows some shrinkage of the unadjusted value (.054) indicating that the model could be generalized on the population. Based on the result, it was concluded that availability of Closed-Circuit Television Camera significantly contributes to crime control.

The researcher also carried out key informant interview to ascertain the impact of Closed-Circuit Television Camera and ammunition on crime control. A business woman who owns a chain of stores on Owode Kosofe, when she was asked about security in the area. She maintained that the security situation in the area is bad. That even the security men who are employed to provide security for the stores in the area collude with gang members to steal things from the stores. On CCTV, she maintains that;

*“Since the police introduced CCTV cameras to us to use, the rate of crime in stores around here has been minimal and in*

*most cases the culprits have been apprehended. For me, my stores are safe because the CCTV cameras are stationed in areas where nobody can have access to”*

Another female store owner opined that;

*“CCTV cameras have helped a lot in reducing the scourge of these area boys, who break into stores to steal things”.*

The finding from the Key informant interview is similar to the findings from the analysis of the quantitative data gathered from the study area. The finding is supported by that of Armitage (2002) and Tilley (1993), who argued that closed-circuit television camera surveillance may deter crime because it makes potential offenders more aware of an increased risk of identification and apprehension. Closed-circuit television camera may deter crime due to an increase in the likelihood of offenders being caught. Sarno (1995) found that closed-circuit television camera had a significant impact on reducing fear of crime in the boroughs of London. Brown (1995) indicated that closed-circuit television camera is an effective tool in reducing fear of crime among public in the case study of Birmingham, UK. Welsh Farrington (2008) presents a comprehensive systematic review and meta-analysis of 41 quasi-experiments whose follow-up periods ranged between 3-60 months. Their findings indicate that surveillance cameras reduced crime by an average of 16%. However, this result was mainly driven by a large crime decline in car parks. No significant desirable effects were found in other public settings. Some of the included studies also found spatial displacement (i.e. crime increases in areas adjacent to the experimental condition), but others found no such effects or even diffusion of benefit (i.e. crime decreases in adjacent areas).

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

The general objective of this study is to investigate whether a relationship exists between security equipment and crime control in Lagos State, Nigeria. Specifically, the study seeks to:

- (i) Determine the impact of Customized patrol vehicles on crime control in Lagos state, Nigeria.
- (ii) Examine the effect of availability of communication gadgets on crime control in Lagos state, Nigeria.
- (iii) Investigate the impact of sufficient arms and ammunitions on crime control in Lagos state, Nigeria.
- (iv) Determine if closed-circuit television cameras have a significant positive effect on crime control in Lagos state, Nigeria.

Based on the Research objectives, the following hypotheses were stated to guide the study:

- (i) Customized Patrol vehicles have no significant positive impact on crime control in Lagos state, Nigeria.
- (ii) The availability of communication gadget does not have a significant positive effect on control in Lagos state, Nigeria.
- (iii) Adequate Arms and ammunitions have no significant positive impact on crime control in Lagos state, Nigeria.
- (iv) Closed-Circuit Television Camera have no significant positive effect on crime control in Lagos state, Nigeria.

Comprehensive review of related literature was carried out to assess diverse opinion of scholars and what researchers have already documented on security equipment and crime control. Three theories were used to guide the study; they include Socio-technical system theory, technological determinism theory and diffusion of innovation theory. The study adopted survey design. Survey was adopted because it provides a high level of general capability in representing a large population. The survey design allows for the provision of information on the characteristics of the study population at specified time period. Data was collected at one point in time only. The survey research design was adopted because the area that was covered by this study is large and so, this method enabled him use the sample drawn to represent the various elements of the population. The sample size used for this study is one thousand and ninety- nine (1099) male and female police officers of Lagos state police command, Lagos state, Nigeria. The instruments that were used in eliciting data from respondents were the questionnaire and Key informant interview (KII).

Data collected from the field by the researcher with the instrument were checked and edited to ensure accuracy; after which the instruments were coded and analyzed using Statistical Package for the Social Sciences (SPSS) software. Statistical tools such as percentages, bar chart, and pie chart and frequency tables were used to analyse the data for demographic features. The testing of hypotheses was done using simple Linear Regression at 0.05 level of significance.

## **5.2 Conclusion**

From the analysis of data gathered from the field, results revealed that there is a significant positive relationship between Customized Patrol vehicles and crime control in Lagos State, Nigeria. The availability of communication gadget



significantly/ positively correlates with crime control in Lagos State, Nigeria. There is a significant positive relationship between adequate arms and ammunitions and crime control in Lagos State, Nigeria. Closed-Circuit Television Camera significantly relate to crime control in Lagos State, Nigeria. The study therefore concludes that security equipment significantly relates to crime control in Lagos State, Nigeria.

### **5.3 Recommendations**

The empirical data of the study revealed significant facts on the relationship between security equipment and crime control in the study area. Based on the findings from the survey and key informant interview conducted the following recommendation becomes germane.

- (i) The police authority should appraise previous reports, research findings and information on state of police equipment with the aim of adequately equipping the police force.
- (ii) There should be an increase on proportional number of patrol vehicles while the old ones are properly maintained. Also, there is must be a provision for PMS (petrol) for vehicles ready to go on patrol. The idea of allowing officers to use these vehicles without making provision for fuel exposes them to corrupt practices and lackadaisical attitude when called up for duty.
- (iii) More sophisticated and technological driven communication devices should be procured by the government and given to different officers. More ground breaking arrest would be made possible through the use of these gadgets. The arrest of billionaire Kidnap Kingpin in Lagos some years ago is a reference point.
- (iv) Since the acquisition of weapons is the primary responsibility of the government, there should be total overhaul of the Police arsenal to address the

contemporary challenges of sophisticated weapons like bullet proof etc. and the training and re-training of personnel on effective usage of the weapons against rising crime rate in the country.

- (v) Government should as a matter of urgency replicate the policy created by it on safer environment. There should be CCTV cameras in strategic locations and by private organizations and individuals. This will adversely reduce the crime rate and increase apprehension as well as prosecution.
- (vi) Budgetary allocation should be made to cater for fuel weekly while mechanisms to reduce wastage and corruption be drafted.

#### **5.4 Suggested Area for Further Study**

The study has confirmed that security equipment have an effect on crime control. However, the study only looked at only four variables of security equipment. There is the need for an extensive research that will look at other variables such fringe benefits, promotion, motivation etc., and how these variables affect the effectiveness of crime control and in the long run the safety and security of lives and property in the country.

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APPENDIX

UNIVERSITY OF CALABAR  
FACULTY OF SOCIAL SCIENCES  
DEPARTMENT OF SOCIOLOGY

**Questionnaire: Identification of Particulars and Informed Consent**  
**TOPIC: *'Security Equipment and Crime Control in Lagos state'*.**

Dear Respondent,

I am AKINTOLA Abayomi, Ph.D. student of the above named department and institution presently conducting a study on *'Security Equipment and Crime Control in Lagos state'*. Your comprehensive and factual responses are therefore solicited, and will be treated in strict confidence. Please feel free because all information supplied will be used solely for academic purposes. Accept my gratitude in advance for your time and attention.

Questionnaire No..... Location.....

Time interview started.....

Time interview ended.....

## SECTION A

### RESPONDENTS DEMOGRAPHIC DATA

Instruction: please tick [✓] the appropriate column that applies to you

1. Sex: Male [  ] Female [  ]
2. Age: 18-25 years [  ] 26-35 years [  ] 36-45 years [  ] 46 years and above [  ]
3. Marital Status: Single [  ] Married [  ] Divorced [  ] separated [  ]
4. Education level: SSCE/GCE [  ] NCE/OND [  ] B.Sc/HND/B.Ed/BA [  ]  
Post graduate degree [  ]
5. Occupational status: Anti-cultism/kidnapping [  ] Criminal Investigation  
[  ] Special fraud unit [  ] Anti-Robbery [  ] Mobile police [  ]
6. Ethnic origin: Yoruba [  ] Hausa [  ] Igbo [  ] Others [  ]
7. Religion: Christianity [  ] Islam [  ] Traditional [  ] Others [  ]

## SECTION B

Instruction: please tick [✓] the most appropriate to you.

### UNIT 1: CUSTOMIZED PATROL VEHICLES

S/N	Items	Strongly Agree	Agree	Strongly Disagree	Disagree
1	Customized Patrol vehicles enhances the performance of the police				
2	Customize Patrol vehicles allows the police to respond to emergencies quickly				
3	Most of the police vehicles are efficiently maintained				
4	With the help of customized patrol vehicles, officers of the Nigerian police force are able to control crimes in Lagos.				
5	The customized police vehicles are not as equipped when compared to those of other nations				

### UNIT 2: COMMUNICATION GADGETS

S/N	Items	Strongly Agree	Agree	Strongly Disagree	Disagree
6	Most of the police officer on patrol duties in Lagos carry Communication devices				
7	Communication device are important equipment needed by the police for efficient crime control				
8	Communication devices allow the police to communicate with other police post and officer in the line of duty				
9	Most of the communication equipment used by the police are out of date				
10	The Nigerian police do not need modern communication device for efficient crime control in Lagos				

**UNIT 3: ARMS AND AMMUNITION**

S/N	Items	Strongly Agree	Agree	Strongly Disagree	Disagree
11	The Nigerian police are well equipped when it comes to arms and ammunition				
12	The arms and ammunition used by the police are better than the ones used by criminals				
13	The kind of arms and ammunition that police used hinders them from effectively controlling crimes in Lagos				
14	Criminals commit crimes with the fear of being attacked or captured because of the kind of arms and ammunitions that the police use				
15	There is need for modern arms and ammunitions for the police to be able to combat crime efficiently				

**UNIT 4: CLOSE CIRCUIT CAMERAS**

S/N	Items	Strongly Agree	Agree	Strongly Disagree	Disagree
16	Close circuit television Cameras is one of the most modern security equipment invented				
17	CCTV make people feel safer				
18	CCTV surveillance within establishments has helped reduce the actual risk of being targeted by criminals?				
19	Crime has reduced in the Lagos state as a result of CCTV cameras installed in key establishments.				
20	The negative effect of CCTV is that it impinges on right to privacy.				

**SECTION C: CRIME CONTROL**

S/N	Items	Strongly Agree	Agree	Strongly Disagree	Disagree
21	The crime rate in Lagos is moderate because of the use of the security equipment available for police.				
22	Curbing crime is made easier because of security equipment				
23	The security agencies in Lagos are able to apprehend suspects fast because they use modern security equipment				



24	Residents go about their business without fear of being robbed or attack because they know that the presence of modern equipment used by the police will help report crime committed on them.				
25	Police officers can now repeal attack from armed robbers because of the modern equipment they use				
26	Suggestion/ Comment				

Thanks and God Bless you

APPENDIX II

UNIVERSITY OF CALABAR  
FACULTY OF SOCIAL SCIENCES  
DEPARTMENT OF SOCIOLOGY

Key Informant Interview Guide; Identification of Particulars and Informed Consent

TOPIC: *'Security Equipment and Crime Control in Lagos state'*.

Dear Respondent,

I am **AKINTOLA Abayomi Ph.D.** student of the above named department and institution presently conducting a study on *'Security Equipment and Crime Control in Lagos state'*.

Your comprehensive and factual responses are therefore solicited, and will be treated in strict confidence. Please feel free because all information supplied will be used solely for academic purposes. Accept my gratitude in advance for your time and attention.

Do I have your permission to continue? ..... 1. Yes ( )      2. No ( )

Thanks for your cooperation.

Interview No..... Location.....

Time interview started..... Time interview ended.....

**SECTION A: Respondent's Socio – Demographic Profile**

1. Sex.....
2. Age.....
3. Religion.....
4. Marital status.....
5. Occupation.....
6. Highest formal educational attainment.....
7. Ethnic Origin.....

**SECTION B: In-depth interview on 'Security Equipment and Crime Control in Lagos state'.**

***CUSTOMIZED PATROL VEHICLE***

1. Does customized patrol vehicle enhances crime control pattern by the police
2. Will adequate provision of customized patrol vehicle facilitates police response to emergencies and distress call
3. To what extent has lack of maintenance and provision of fuel affects the functionality of patrol vehicles?
4. In terms of quantity, can we say police have enough patrol vehicles to combat crime?
5. Is the provision of customized patrol vehicle solely the responsibility of the Nigeria police?

**COMMUNICATION GADGETS**

6. Do Nigeria police make use of communication gadgets during operations
7. Can you list the communication gadgets use by the command
8. Has adequate provision of these gadgets promoted effective crime control
9. Will the installation of communication gadgets in police vehicle and it usage have any effect on crime control and their responses to emergencies and distress call

### **ARMS AND AMMUNITIONS**

10. Has the force sufficient arms and ammunition to incapacitate dangerous armed criminals.
11. Has lack of adequate provision of arms and ammunition led to increase in violent crime like robbery, thuggery, cybercrime, cultism, ritual killing, kidnapping, insurgency, banditry etc?
12. Does insufficient arms and ammunition affects the performances of police officer negatively.
13. How sophisticated is the force in terms of modern acquisition and usage of ammunitions.

### **CLOSE CIRCUIT CAMERAS**

14. Has the command adopted the usage of CCTV cameras as a tool for effective Crime control
15. How effective are the installed close circuit cameras?
16. Should government invest more on close circuit cameras?
17. Do you have any suggestion or comment?

Thank you for your time.

**ENVIRONMENTAL LEGISLATIONS AND BIODIVERSITY CONSERVATION  
IN CROSS RIVER STATE, NIGERIA**

**BY**

**ABANG, THOMAS AGBOR  
EDA/Ph.D/17/009**

**SUBMITTED TO**

**POST GRADUATE SCHOOL  
UNIVERSITY OF CALABAR  
CALABAR, NIGERIA**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF  
DOCTOR OF PHILOSOPHY, (Ph.D) DEGREE IN ENVIRONMENTAL ADULT  
EDUCATION**

**AUGUST 2021**

## CERTIFICATION


We certify that this thesis entitled "Environmental Legislation And Biodiversity Conservation In Cross River State, Nigeria." by Abang, Thomas Agbor with (Registration Number EDA/PH.D/17/009), carried out under our supervision, have been examined and found to have met the regulations of the University of Calabar. We therefore recommend the work for the award of Doctor of Philosophy (Ph.D) Degree in Continuing Education and Development Studies (Environmental Adult Education).

Dr. (Mrs.) Cecilia K. Essien  
(Chief Supervisor)  
Status: Senior Lecturer

Signature: 

Date: 3-9-2021

Dr. (Mrs.) Costly. Erim  
(Supervisor)  
Status: Senior Lecturer

Signature: 

Date: 03-09-2021

Dr. G. B. Anthony  
(Ag. Head of Department)  
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Signature: 

Date: 03-09-2021

Prof. C. P. Akpan  
(Graduate School Representative)  
Status: Professor

Signature: 

Date: 3/09/2021

Prof. Peter B. Abu  
(External Examiner)  
Status: Professor

Signature: 

Date: 03/09/2021

## DECLARATION

I hereby declare that this dissertation on “environmental legislations and biodiversity conservation in Cross River State, Nigeria” is an original work written by **Abang, Thomas Agbor** with Registration Number: EDA/Ph.D/17/009. It is a record of my research work and has not been presented before in any previous publication.

**Abang, Thomas Agbor**  
(*Student/Candidate*)

Signature: 

Date: 13-08-2021

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## ABSTRACT

This study sought to establish the relationship between environmental legislations and biodiversity conservation in Cross River State. To achieve the purpose of the study, eight research questions were posed and eight hypotheses formulated and tested at .05 level of significance. Literature was reviewed according to the sub-variable of the study. The study adopted the ex-post facto research design. The population of the study is made up of 4496 registered farmers from which the respondents were drawn. The sample for this study comprised 600 registered farmers residing in 12 selected communities from the study area. The instrument for data collection was a 45 item structured questionnaire developed by the researcher. The instrument was titled "Environmental legislations and Biodiversity Conservation Questionnaire (ELBCQ). Face validity of the instrument was done by the supervisors and two experts in tests and measurement. They certified the instrument valid to measure the research variables. Cronbach Alpha reliability technique was used to ascertain the reliability of the instrument which values ranges from .07 to .82 which certify the instrument reliability to measure the research variable. From the administered questionnaire, data was analyzed using simple regression analysis for the hypothesis one to seven and multiple regression analysis for hypothesis eight. The findings of the study revealed that environmental impact assessment act awareness significantly relate with biodiversity conservation, Cross River State Forestry Commission Law significantly relate to biodiversity conservation, endangered species act significantly relate to biodiversity conservation, convention on biological diversity do not significantly relate to biodiversity conservation, Federal national park act significantly relate to biodiversity conservation, National environmental standard and regulation enforcement agency act significantly relate to biodiversity conservation, sea fishery act significantly relate to biodiversity conservation and the joint effect of the sub-variable significantly relate to biodiversity conservation in Cross River State, Nigeria. Based on the findings of the study, it was recommended amongst others that; laws regarding hunting of endangered animals in forest reserve areas should be enforced strictly by the authorities concerned by imposing strict punishment for defaulters, there should be environmental impact assessment of any development project to ascertain the environment impact before such project will be approved to take off and these acts should be enforced accordingly (**word count: 363**).

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**LIST OF FIGURE**

FIGURE 1: Abraham Maslow's hierarchy of needs

9

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the study

Biodiversity conservation has become one of the greatest challenges confronting Cross River State in recent times. Cross River State is richly blessed with biological biodiversity. The Cross River State rainforest plays a very significant role in the provision and sustenance of resources which are necessary for the survival of man. These resources include animals that provide protein, trees that are converted to logs of woods which are used for the construction of houses and bridges, the forest provides watershed that protect streams and spring that people drink from and equally provides the much needed oxygen required by man, while regulating the temperature of the Earth surface. The importance of biodiversity is quite enormous but unfortunately, people's attitude towards biodiversity conservation is abysmally low and calls for concern (Salami, 2018).

Generation have come and gone but the biodiversity is still undergoing unprecedented changes arising mostly from anthropogenic factors such as unsustainable logging practice, unsustainable agricultural practice (indiscriminate bush burning, continuous farming among others) and low awareness creation on biodiversity conservation strategy. Increasing human activities in Cross River State which adversely affects the equilibrium state of the environment has resulted in high rate of biodiversity depletion. With increasing awareness of the dangers post by such challenges, the government and non-governmental organizations have risen to the global challenge of ensuring the restoration, preservation and conservation of the biodiversity through the instrument of the law. African governments for instance, are making increasing efforts to

ensure that no stone is left unturned in controlling the rate human activities affect the biodiversity which adversely affect human health.

The forest which is a biological community consisting of complex association of tree plants, water sources and soils that have evolved over millions of years, provides habitats for millions of biodiversity (plant and animal species). The forest is directly threatened by depletion and degradation of natural resources on which plants depend. Some 20,000-50,00km of potentially productive land is lost annually worldwide through deforestation (FAO, 2012). Deforestation activity affects the protective, productive and regulatory, functions of biodiversity on a global perspective, some of these deforestation activities have reduced the vegetative cover where 2.9 million Km<sup>2</sup> of the earth's is said to be at a very high risk of resultant impact of desertification, food shortages, global warming etc (Food and Agricultural Organization, 2012).

Cross River State is richly blessed with abundance of biodiversity that improve lives. In a bid to promote or encourage development, several devices have been invented to enhance agriculture, industrial and transportation activities. These activities while providing the raw materials for production of goods and service have also resulted in pollution of the land, atmosphere and rivers which is detrimental to both land and marine biodiversity.

The disappearance of biodiversity in Cross River State has partially been blamed on hunting/poaching activities which have promoted the cutting down of trees and the burning of bushes in most cases before hunting takes place. There is also wanton destruction of the forest (deforestation) for the purpose of commercial timber and farming. These loggers deforest the forest with impunity as many of them have the backing of top government officials. The Boki forest for instance used to be a home for



animals like elephant, tiger, leopard and buffalo but these animals are now on extinction as a result of wanton logging and hunting activities that have dominated the area. The Ikom and Etung forests are not exempted from these wanton destruction.

Logging activities are increasing on daily basis in most part of the state. The Cross River State governments have made concerted effort in an attempt to conserve the biodiversity in the state. It is as a result of conserving the state biodiversity that the state government banned logging activities in 2010. Also, the Cross River State forestry commission bill was signed into law on Wednesday September 8<sup>th</sup>, 2010 in response to biodiversity conservation. Environmental non-governmental organizations have played key roles in biodiversity conservation in the state. These environmental NGOs includes: CERCOPAN, PANDRILLUS, Green Planet Initiative International and NGO coalition for Environment (NGOCE) among others. These NGOs have contributed greatly in the conservation plants and animals species in the study area. However, irrespective of the state government and environmental NGOs efforts, biodiversity depletion is still on the increase. Most of the Law Enforcement Agencies saddled with the responsibilities of protecting biodiversity seem to be compromising with the loggers and hunters. At times, some of these hunters set the forest ablaze in other to achieve their selfish aim thereby destroying the forest which harbours wildlife. The pressure of these human activities on the environment has greatly transformed the nature of biodiversity. National and state governments are vital for the preservation of biodiversity through the passing of laws requiring protection of species and habitats. The independent and post-independent era have however, witness the emergence of legal frameworks that enhance effective environmental policies (Rousel, 2017). Environmental policies refer to policies made amongst other things to secure a quality environment adequate for good health and

wellbeing. The implementation and enforcement of such policies and programmes is necessary for the attainment of their objectives; the instrument of the law is the primary means. Law here refers to a body of rules enacted to achieve set objectives.

The establishment of Federal Environmental Protection Agency Act (FEPA) in 1998 was a turning point for several states government to establish their own Environmental Protection Agencies. FEPA was later repelled to National Environmental Standard Regulation Enforcement Agency (NESREA) Act in 2007. In line with the above effort of ensuring the protection of biodiversity, the Cross River State forestry commission is saddled with the responsibility of conserving biodiversity in the state in September 2010, Cross River State government sign the state forestry commission bill into law. This is considered a major step towards the sustenance and strategic management of the vast forest reserves in the state. In 2019, the Liyel Imoke-led administration banned logging activities in the state rainforest. However, logging activities went on under cover by powerful government officials who use their offices and powers as a shield to perpetrate their deeds. The Cross River State Forestry Commission Law provided a legal framework for the conservation and sustenance of the forest and ecosystem in the state which harbours about 60% of the total forest reserves in the country (CSFCL, 2010), the law empowers the forestry commission to regulate the activities of ministries, parastatals, local government areas, department, organizations and statutory bodies as they relate to the forest resources, wildlife conservation and sustainable forestry.

The Cross River State's rainforest is fast depleting because of human influences. This human influences includes; logging, arable crop farming, clearing for pasture, hunting/poaching activities, and the use of chemicals in fishing and government activities

such as road construction. The effect of biodiversity depletion has led to decline in forest covers, forest degradation, impoverishment of the soil, the general deterioration of environmental conditions and severe economic implication. However, the Cross River State forestry commission laws 2009, section 86-98 guide against illegal forest business like firewood collection, timber production as well as indiscriminate hunting and fishing which rural citizens take as one of their major occupation. Environmental Impact Assessment Act (EIA) awareness is opined at creating awareness on the general principles, procedures and methods to enable the prior consideration of environmental impact assessment on certain public or private. Environmental impact assessment is a paramount instrument in achieving biodiversity conservation. Natural habit loss and fragmentation as a result of development projects are the major causes of biodiversity loss (Thompson, 2017). Environmental impact assessment act awareness will sensitize the public on the dangers of not considering the effects of development projects on biodiversity. As well as enlightened the public on the benefits of Environmental Impact Assessment (EIA) consideration on biodiversity conservation.

Cross river state forestry conservation is a law that made provision for the establishment state forestry commission for the purpose of conserving biodiversity in the state. Biodiversity loss has led to decline in forest covers, impoverishment of the soil, the general deterioration of environmental conditions and severe economic conditions. However, the Cross River State forestry commission law guides against illegal forest business like unsustainable logging and indiscriminate hunting. This law has contributed immensely to biodiversity conservation in the state.

Endangered species act awareness is the sensitization of the public on a key legislation for both domestic and international conservation that provides a framework to

conserve and protect endangered and threatened species and their habitat. The endangered species act concentrates on the management of Nigerian wildlife and some of their species in danger of extinction as a result of over exploitation (Endangered Species Act, CAP, E9, LFN, 2004). The endangered species act awareness has contributed immensely to biodiversity conservation in the state specifically and in the country generally. Exposing the public to the awareness endangered species and wildlife extinction.

Convention on biological diversity is the internationally legal instrument for the conservation of biological diversity. Biological diversity is the variability amongst living organism including terrestrial, marine and other aquatic ecosystems and their ecological complexes. Diversity may be within species, between species and of the ecosystem. Convention on biological diversity guides the development of legislative mechanism in Nigeria as a whole and in Cross River State particularly. The convention on biological diversity has played a major role in biodiversity conservation by promoting the development and application of domestic laws for the conservation and sustainable use of biological diversity.

Federal national park management act awareness enlightened the public on the purpose of the National Park which is to establish protectorates and used them for resources conservation, water catchment protection, wildlife conservation and maintenance of the national ecosystem balance. Federal national park has been instrumental to wildlife conservation in the study area. National environmental standard and regulation enforcement agency act awareness is the awareness of an act that provide for the establishment of NESREA charged with the responsibility for the protection and development of environment in Nigeria and for the related matters. NESREA is charged

with the responsibility of protecting Nigeria the Nigerian environment which the study area (Cross River State) is inclusive.

Sea fisheries act 84, provides for the control, regulation and protection of sea fisheries in the territorial water of Nigeria (sea fisheries act 19, 92, No.71). The sea fisheries act made it a criminal offence for any person to engage in fish taking by adopting unauthorized and dangerous means which could result in the extinction and depletion of fish stock in the Nigerian waters as described under the act as well as endanger the lives of ultimate consumers

## 1.2 **Theoretical framework**

Three theories are used in this study in order to guide the research. They include;

1. Maslow's hierarchy of needs theory by Abraham Maslow (1954)
2. Behaviorism theory by Skinner (1953)
3. System theory by Marianne Hrasny (2008).

### 1.2.1 **Maslow's hierarchy of needs theory**

This theory was propounded by Abraham Maslow in 1954. Maslow is of the view that man's needs are in hierarchical arrangement. The theory states that man is motivated to behave in a particular way based on his quest to satisfy his needs. To Maslow, man is a wanting being, there is always some needs he wants to satisfy. Once this is accomplished, that particular need no longer motivates him and he turns to another again seeking satisfaction (Anijah-Obi, 2001). These needs are made up of 5 basic needs, which are the major reasons for biodiversity depletion and degradation. They are; physiological needs, safety needs, social needs, esteem needs, and self-actualization needs. Our concern is the physiological and safety needs. Physiological needs represent basic needs such as food,

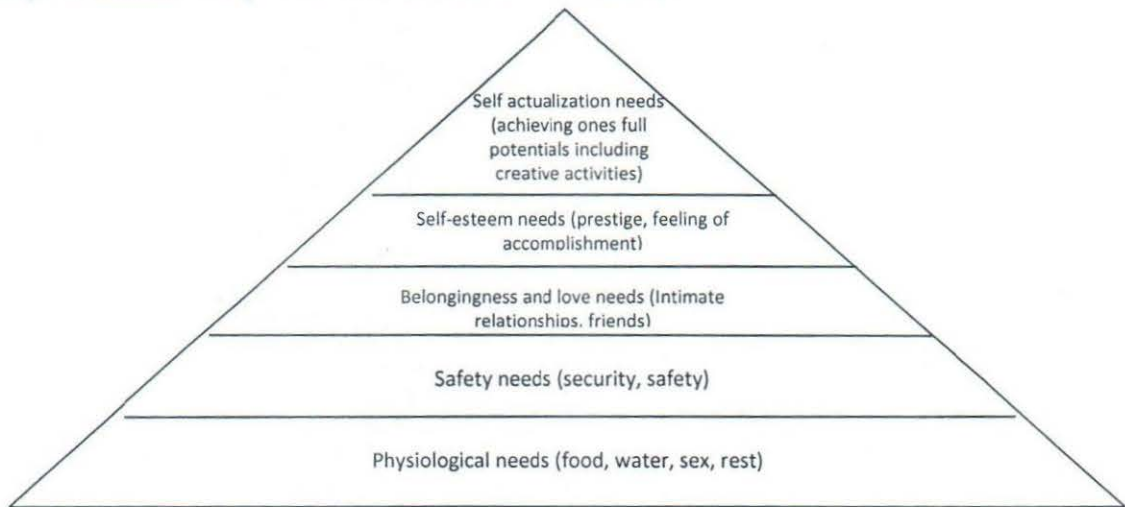
water, clothing, shelter, oxygen, sex and elimination of waste products. These are also called biological, biogenic or survival needs.

Safety needs come in once physiological needs are satisfied. Safety needs include protection from physical danger, economic security and job security. So when physiological needs have been satisfied to a certain extent, safety needs become the most paramount to living organisms. When physiological and safety needs have been satisfied to an extent, social needs such as the need for love and affection becomes important motivators. The individual wants to be loved. He wants to receive and give acceptance, friendship and affection. People need to feel important and belong. According to Onyehalu (2017) when this vital need is obstructed and thwarted, adverse physiological reactions maladjustment could result, despite satisfaction of basic physiological needs.

Esteem needs has to do with recognition from others. So when those around them make it clear that they are indeed important, feeling of esteem, self-confidence, prestige and power are all produced. Infact, it is this need to be important and to be recognized that drives people to take title such as Chief, Elder, Patroness, Ntufam, Obong, Eze, Kabyesi, Alhaji, and positions such as Dr. Professor, Senator, Ambassador etc when esteem needs are basically satisfied, the self-actualization needs becomes important. This is a strong desire or attraction towards beauty, decency and orderliness. It has to do with competence and achievement. Human beings desire competence because it gives them a kind of control over the environment. A self-actualizing person is consistently forward-looking, optimistic and poised to break new ground by working and striving for perfection both in his/her professional daily life.

The implication of Maslow's Needs Theory to this study is that; since man according to Maslow, is a wanting being, and there is always some needs he will always

want to satisfy, he sees biodiversity as a free gift for exploitation. This implies that once a particular resource is exploited to his satisfaction, that resource no longer motivates him. He turns to another resource seeking for satisfaction. Thus, the quest to exploit other resources continues and will lead to over exploitation of forest resources (biodiversity). It is on this note that environmental legislation is needed as an instrument of behaviour change to address the problem of misuse of biodiversity.



**Figure 1: Abraham Maslow's hierarchy of needs**

### 1.2.2 Behaviorism theory by Skinner (1953)

This theory was propounded by Skinner in 1953. The theory states that the object of study of psychology is the observable phenomenon of behaviours; actions or activities that can be registered with the naked eye that behaviours are mainly explained by contextual factors. This is reflected in what is known as the triple contingency relationship model which establishes that a behaviour is contingent upon the appearance of discriminative stimulus (environmental event that indicates the occasion for a behaviour to occur). The behaviour will be repeated or it will be extinguished depending on the consequences. If the consequence is positive or reinforcing, the behaviour will be maintained and if it is punished or not reinforced it will be extinguished. According to Cone and Hayes (1980), it is possible

to identify in the environment a large number of discriminative stimuli that lead to the development of anti-environmental acts like unsustainable logging activities, unsustainable hunting/poaching activities, cars that pollute the atmosphere foods whose production release green house gases et cetera. The anti-environmental responses given to these discriminative stimuli produce reinforcing consequences such as comfort, pleasure and sense of status, which culminate in the maintenance of actions that harm the environment, most likely throughout people's life (Lehman & Geller, 2014). Given that these reinforcing consequences are short term immediate; they will have a more noticeable effect than the long term negative repercussions of anti-environmental behaviour (pollution, depletion of resources, climate change etc).

Behaviourist establishes that this differential effect of the greater influence of reinforcing consequences in the short term, than negative long term ones, determines that people are more likely to behave anti-environmentally than pro-ecologically (Cone & Hayes, 1980).

For the above reason, the theory suggests intervention programmes aimed at increasing conservationist behaviours and minimizing behaviours that harm the environment (Galler, Abrahamse, Guan & Sussman, 2016). The increase of conservationist action as produced using mainly positive reinforcement, modeling and feedback and the decrease in destructive behaviours is achieved through punishment and extinction or withdrawal of reinforces (Lehman & Geller, 2014).

The behaviorism theory is relevant to this study in that environmental legislations act as "a watch dog" to the environment by curtailing or extinguishing negative or destructive environmental behaviours that causes harm to biodiversity through penalty or punishment to offenders which ultimately serves a deterrent to offenders and would be offenders.



### 1.2.3 System theory by Marianne Krasny (2008)

The theory was propounded by Marianne Krasny in 2008. Marianne Krasny is a Professor and Director of Civic Ecology Lab in the Department of Natural resources at Cornell University specializing in community environmental education in urban and other settings in the US and internationally. The theory states that transmission of skills, knowledge and attitude are necessary to citizens to enable them protect, preserve and conserve the forest and its valuable resources. Her system theory focuses on environmental education programme that are nested within and linked to community based stewardship or civic ecology practices, such as community forestry, streamside restoration and community gardening. It suggests ways in which educational programmes stewardship, practice and other social-ecological system components and processes interact through feedback loops and other mechanisms, as well as means by which urban environmental education might lead to local ecosystem services and human and community wellbeing. The theory lays emphasis on ecological education. By this theory, protection, preservation and conservation are the sub-systems in forest management. The relevance of this theory to this study is that it lays emphasis on ecological education which leads to biodiversity conservation.

### 1.3 Statement of the problem

The rate at which biodiversity is being depleted is increasing on daily basis in Cross River State. The state is currently faced with the problem of biodiversity conservation. The researcher has observed with keen interest and dismay that there is high rate of illegal logging activities, harvesting of Non Timber Forest Products (NTFs) indiscriminate bush burning, continuous farming, unsustainable agricultural practices, illegal hunting/poaching activities and the use of chemicals in fishing. There is also low awareness creation of biodiversity conservation strategy in the state. Consequently, these unsustainable activities

have resulted to diverse environmental problems or hazards such as ozone layer depletion, erosion, flooding and wildlife extinction. The pressure of human activities on biodiversity has negatively transformed the nature of biodiversity and the ecosystem. As these human activities exert pressure on the environment, biological diversity (biodiversity) declines, habitats are transformed and population of some species dwindles to the point of extinction. The ever increasing human population coupled with technological development place stress on the world's biological diversity hence the unprecedented rate of biodiversity loss in Cross River State.

The continuous destruction and unsustainable use of the remaining Cross River State biodiversity through these unsustainable anthropogenic activities is the major reason for the high rate of wildlife depletion and extinction in the state. Animals such as; elephants, buffalo, leopard, hyna, lion, Eagle have been extinct from the state while trees like Ebony, Opepe, Cedar and Mahogany are endangered species. The cross river Gorilla are almost hunted to extinction. The cross river gorilla were formerly more widespread and abundant than they are today. The loss of even a few individuals of the cross river gorilla to poaching represents a major threat to their survival. For such a small fragmented population, habitat loss and fragmentation are further reducing connectivity between sites, increasing their isolation from one another and reducing opportunity for gene flow.

Despite the concerted effort made by the state government to curb the high rate of biodiversity, depletion in the state, biodiversity depletion is rather on the increase in September 2010, the Liyel Imoke administration placed a ban on logging activities within the state reinforcing with the intention of conserving biodiversity in the state irrespective of the embargo, logging activities went on smoothly with impunity.

The media has also played a key role in sensitizing the public on the dangers of biodiversity depletion and the need to conserve biodiversity all to no avail. Non-

governmental environmental organizations like CERCOPAN, PANDRILUS among others have also played a key role in sensitizing the public on the benefit of biodiversity conservation living by example but all their effort proved abortive.

It is in realization of the above that the researcher sought to determine the relationship between environmental legislations and biodiversity conservation in Cross River State. The statement of the problem is therefore what is the relationship between environmental legislations and biodiversity conservation in Cross River State?

#### 1.4 Purpose of the study

The general purpose of the study is to determine the relationship between environmental legislation and biodiversity conservation in Cross River State. Specifically, this study aim at:

1. To ascertain the relationship between Environmental Impact Assessment (EIA) Act Awareness and biodiversity conservation.
2. To determine the extent to which Cross River State Forestry commission Law Awareness relates to biodiversity conservation.
3. To examine the extent to which endangered species Act Awareness relate to biodiversity conservation.
4. To ascertain the extent to which convention on biological diversity Awareness relate to biodiversity conservation.
5. To examine the relationship between Federal National Park Act Awareness and biodiversity conservation.
6. To determine the extent to which National Environmental Standard Regulation Enforcement Agency (NESREA) Act Awareness relates to biodiversity conservation.

7. To examine the relationship between sea fisheries act Awareness and biodiversity conservation.
8. To ascertain how Environmental Impact Assessment (EIA) Act Awareness, Cross River State Forestry Commission Law Awareness, Endangered Species Act Awareness, Convention on Biological Diversity Awareness, Federal National Park Act Awareness, National Environmental Standard Regulations Enforcement agency Act Awareness and Sea Fisheries Act Awareness relate to biodiversity conservation.

### 1.5 Research questions

The study was guided by the following research questions:

1. To what extent does biodiversity Environmental Impact Assessment (EIA) act Awareness relate to biodiversity conservation?
2. How does Cross River State Forestry commission Law Awareness relate to biodiversity Conservation?
3. To what extent does Endangered Species Act Awareness relate to biodiversity conservation?
4. What is relationship between international convention on biological diversity Awareness relate to biodiversity conservation?
5. How does Federal National Park Act Awareness relate to biodiversity conservation?
6. To what extent National Environmental Standard Regulation Enforcement Agency Act Awareness relate to Biodiversity conservation?
7. How does sea fisheries act Awareness relate to biodiversity conservation?
8. To what extent does Environmental Impact Assessment Act Awareness, Cross River State Forestry Commission Law Awareness, Endangered Species Act Awareness, Convention on Biological Diversity Awareness, Federal National Park Act

Awareness, National Environmental Standard Regulations Enforcement agency Act Awareness and Sea Fisheries Act Awareness relate to biodiversity conservation.

#### 1.6 **Statement of hypotheses**

1. Environmental Impact Assessment (EIA) Act Awareness does not significantly relate to biodiversity conservation.
2. Cross River State Forestry Commission Law Awareness does not significantly relate to Biodiversity Conservation
3. Endangered Species Act Awareness does not significantly relate to biodiversity conservation.
4. International convention on Biological diversity Awareness does not significantly relate to biodiversity conservation.
5. Federal National Park Act Awareness does not significantly relate to biodiversity conservation.
6. National Environmental Standard Regulation Enforcement Agency Act Awareness does not significantly relate to biodiversity conservation.
7. Sea Fisheries Act Awareness does not significantly relate with biodiversity conservation.
8. Cross River State Forestry Commission Law Awareness , Endangered Species Act Awareness, Convention on Biological Diversity Awareness, Federal National Park Act Awareness, National Environmental Standard Regulations Enforcement agency Act Awareness and Sea Fisheries Act Awareness does not significantly relate to biodiversity conservation

#### 1.7 **Assumptions of the study**

The following assumptions are made in this study:

1. The variables under study are measurable.
2. The variables under study are normally distributed
3. The samples of the study are homogenous.
4. The population from which the sample of the study was drawn is adequate and well distributed.
5. The responses of subjects to the instruments represent their true state of opinion with respect to the variable under study.

### 1.8 Significance of the study

The findings of this study will be of great benefit to students, lecturers, researchers, environmentalist, farmers, government authorities and the host of communities.

To the students, this research work may serve as a resource material to them in environmental education and other related discipline for acquiring relevant knowledge on the subject matter under investigation thereby adding to the existing library in the field of environmental education.

To lecturers in the aforementioned department and other related discipline may also see information on this study as useful material for acquiring and imparting of relevant information to the students. Researchers may find this study as useful reference material that may support further investigation on the phenomenon under investigation in other locations in a wider scope.

To environmentalist, the findings may assist them to initiate more programmes and intensify more efforts that would protect biodiversity generally.

Farmers: The findings may assist farmers to farm with the understanding of the reactive effective of the environment if abused.

Government authorities and non-governmental bodies may also see this effort as baseline data for influencing policy decision concerning biodiversity and its management.

The host communities where this study will be conducted may benefit from the study in that, the information provided in this work may help them understand the responsibility and role (dos and don'ts) in handling biodiversity.

### 1.9 **Scope of the study**

This study is delimited to environmental legislations and biodiversity conservation in Cross River State, Nigeria. All the eighteen local government areas constitute the study area. The study is further delimited to the sub-variables of the study viz; Environmental Impact Assessment Act, Cross River State Forestry, Commission Laws, Endangered Species Act, Convention on Biological diversity, National Park Act, National Environmental Standard regulation, Enforcement Agency Act and Sea Fishery Act.

### 1.10 **Limitation of the study**

A study involving human characters can obviously not be without some limitations. Consequently factors that acted as limitations to the study includes; the extent to which the findings can be generalized beyond the local government and communities studied, flaws in the research designs (ex-post facto research design, the researcher cannot manipulate variables and the researcher cannot randomly assign research subjects to different groups) and poor road network (Some of the areas the researcher could have visited are inaccessible due to the terrain of the area).

### 1.11 **Definition of terms**

**Legislations:** This refers to set laws that have been passed by parliament.

**Biodiversity:** Refers to the variety of life forms on earth-the different plants, animals and micro-organisms and the ecosystem of which they are a part.

**Conservation:** Refers to the preservation and protection of the environment.

Environmental legislations: Refers to the legislative powers or laws that control the environment.

Biodiversity loss: Refer to the decline or disappearance of variety of living things that inhabits the planet (biological diversity).

Biodiversity conservation: Refers to the practice of protecting and preserving the wealth and variety of species, habitats, ecosystems and genetic diversity of the planet.

Environmental impact: Quantifiable change in environmental quality brought out by an activity.



## CHAPTER TWO

### LITERATURE RIVIEW

This chapter is concerned with review of literature related to this study. For simplification and ease of understanding, the literature is presented under the following sub-headings;

- 2.1 Environmental Impact Assessment (EIA) Act CAP E12, LFN 2004 Awareness and biodiversity conservation.
- 2.2 Cross River State Forestry Commission Law Awareness and Biodiversity Conservation.
- 2.3 Endangered species Act CAP E9, LFN 2004 Awareness and Biodiversity Conservation.
- 2.4 Conventional Biological Diversity Awareness and Biodiversity Conservation.
- 2.5 Federal National Park Act, CAP 65, LFN 2004 Awareness and Biodiversity Conservation.
- 2.6 NESREA Act Awareness and Biodiversity Conservation.
- 2.7 Sea fisheries Act CAP, LFN 2004 Awareness and biodiversity conservation
- 2.8 Summary of Literature Review.

#### **2.1 Environmental Impact Assessment (EIA) Act CAP E12, LFN 2004 Awareness and biodiversity conservation**

Environmental Impact Assessment Act is an assessment of the potential impacts whether positive or negative, of a proposed project on the natural environment (EIA Act, 2004). The EIA Act as it is informally called deals with the considerations of

environmental impacts in respect of public and private projects. Sections relevant to environmental emergency prevention under the EIA include:

- a. Section 2 (1) requires an assessment of public or private projects likely to have a significant (negative) impact on the environment.
- b. Section 2 (4) requires an application in writing to the agency before embarking on projects for their environmental assessment to determine approval.
- c. Section 13 establishes cases where an EIA is required and
- d. Section 60 creates a legally liability for contravention of any provision.

Pioch (2017) carried out a study on environmental impact assessment and biodiversity conservation in montepellar. The purpose of the study was to ascertain the effect of environmental impact assessment on biodiversity conservation, simple regression analysis was used as the statistical tool. The result of the findings showed that environmental impact assessment has significant effect on biodiversity conservation.

Geldmann (2018) carried out a study on evaluating the effectiveness of protected areas for maintaining biodiversity, securing habitats and reducing threats in Copenhagen. The purpose was to evaluate the effectiveness of protected areas in maintaining biodiversity, securing habitats and reducing threats. The survey research design was adopted for the study using a well structured questionnaire as instrument for data collection with a sample of 120 respondents. The result showed that protected areas are effective for maintaining biodiversity conservation.

Also, Soderman (2019) conducted a study on biodiversity and ecosystem service impact assessment from component to services. The study was meant to examine the current practice of finish ecological impact assessment with respect to substantive and procedural features and roles of actors. The survey research design was adopted with

sample of 200 respondents. Simple regression was used as the analysis proved that knowledge base for the comprehensive ecological impact assessment EIA, natural 200, appropriate assessment and municipal land use planning SEA is far from adequate.

Also Lawal (2018) carried out a study on evaluating Environmental Impact Assessment procedures in the Nigerian maritime oil and gas sector. The purpose of the study was to evaluate environmental impact assessment procedures in the Nigerian maritime oil and gas sector. The survey research design was used with a sample of 300 respondents. Simple regression analysis was used to analyze the data and it was revealed that institutional context NMOGs is characterized by high level inter agency conflict and policy ambiguity.

Similarly, Isah (2014) carried out a study on the role of Environmental Impact Assessment in Nigeria's oil and gas industry. The purpose of the study is to ascertain the role of EIA in Nigeria and oil and gas and to ensure significant improvement in the EIA process with strict adherence to regulations. The survey research design was used with a sample of 560 respondents. A well structured questionnaire was analyzed using analysis of variance (ANOVA) statistical tool. The result demonstrates the ingrained views and perceptions on each side of the dispute. The result also revealed the constraints and challenges faced by various stakeholders in conducting EIA in Nigeria.

Paragraph 1 of Article 14 of the convention on biological diversity (CBD) identifies impact assessment as a key instrument for achieving the conservation, sustainable use and equitable sharing objectives of the convention. In paragraph 40 of decision W/10-c, the conference of parties (COP) recommended that appropriate issues related to environmental impact assessment be integrated into and become an integral part of relevant sectoral and thematic issues under its programmes of work. At its sixth

meeting (The Hague, 2002), the COP endorsed draft guidelines for incorporating biodiversity related issues into environmental impact assessment legislation and or processes and in strategic environmental assessment.

Biodiversity conservation contributes to environmental sustainability, a critical Millennium Development Goal (MDG) and a central pillar of World Bank assistance (World Bank, Portfolio, 2018, P.1). Until recently man's relationship with the rest of terrestrial life was best summarized by the biblical dictates: be fruitful and multiply and fill the earth and subdue it, and have dominion over the fish of the sea and over the birds on upon the earth. (The Holy Bible, Genesis chapter 1:28). In an effort to fulfill the command of God to have dominion over all creatures with a view to enjoying the divine bequeath of the natural resources, man's activity has threatened different species of fauna and flora (Gasu and Gasu, 2018).

Natural habitat loss and fragmentation, as a result of development projects are major causes of biodiversity erosion (Thompson, 2017). Environmental impact assessment (EIA) is the most commonly used site-specific planning tool that takes into account the effects of development projects on biodiversity by integrating potential impacts into the mitigation hierarchy of avoidance, reduction and offset measures.

Natural habitat destruction by development projects (e.g linear infrastructure, urbanization, commercial centres, quarries etc). has continued to cause the loss of genetic and species diversity, the fragmentation of natural habitats and degradation of ecosystem function (Fahrig, 2013; Mckinney, 2018, Mea, 2005). Many countries have this developed instruments that attempts to ensure a No Net Loss (NNL) of biodiversity in the face of land development (Bull et al, 2016; Hassan et al, 2015; Maron et al, 2016).

According to Apostolopoulou and Adams (2015), the development of the NNL paradigm and its application in land-use planning has however encountered difficulties due to inconsistencies in the way its underlying concepts are framed. Indeed, in practice, NNL appears to be impossible there is nearly always some form of decline in biodiversity- a sort of generalized net loss impossible to avoid, but never explicitly presented (Aronso and Morenomatoes, 2015). In relation to these difficulties, many countries have developed two main instruments to apply NNL policy in their land use planning procedures. The first of these instruments concerns environmental Impact Assessment (EIA) that developed during the 1970's to become key instrument in site specific planning for biodiversity and environmental management (Morgan, 2012 Mandelik, Dayan & Feitelson, 2015).

EIA contributes to assessment and anticipation of development projects and their impact on the environment and to the adoption of pro-active policy to mitigate the impact of such projects. However, many authors have pointed out recurrent weakness in the identification of impacts and conservation stakes associated with biodiversity and landscape ecological content (Byron, 2010, Drayson, 2015, Gontier, 2016, Treweck and Thompson, 2007). EIA has also been criticized because choices among alternative options for development project are more often based on socio-economic considerations than on ecological arguments (Bonthoux, 2015). Geneletti (2016), asserted that the delimitation of the area used to assess impacts is often made on a non-ecological basis (non biodiversity bases). Mandelik (2015) opined that, measurability indicators or quantitative predictions are rarely used, while Samarokoom and Rowsman (2018), observed that, the relevance of an impact is unclear. EIA contributed to the assessment and anticipation of development projects and their impact on environment and the

adoption of pro-active policy to mitigate the impacts on such projects. However, many authors have pointed out recurrent weakness in the identification of impacts and the conservation stakes associated with biodiversity and landscape ecological context (Byron, 2000, Dryson, 2015, Gontier, 2016 and Trewek and Thompson, 2007).

Khara and Kumar (2018) observed that the study scope of EIA is too narrow and often poorly defined. Many studies only assess biodiversity in terms of species population with little attention paid to understanding of effects on ecological processes, ecosystem functions and genetic variation (Atkinson, 2015; Gontier, 2016, Khara and Kumar, 2010, Briggs and Hudson, 2013 and Geneletti, 2016) noted that, an absence of precise definition provides basic information for identification of NNL objective within the context of a second major policy instrument.

According to Decree 86 (1992), the national environmental protection (Management Procedure on Environmental Impact Assessment) regulations also known as the environmental impact assessment decree, 1992 is a law governing the EIA process in Nigeria.

Environmental impact can be defined as a quantifiable change in environmental quality brought about by an activity. The term connotes an estimated or judgment of the significance and value of environmental effects for natural, socio-economic and human receptors. Sadar and Associates (2016) defined EIA as an activity which identifies, predicts, interprets and communicate information and proposes ameliorative measures about impacts of a proposed action or developed proposal on human health and wellbeing of the ecosystem upon which human survival depends.

According to Okorodudu (2018), the national council on the environment at its meeting in November 1990 recognized EIA as an indispensable prerequisite for the

effective implementation of the national policy on environment and directed that EIA be made mandatory for all development projects with effect from March 1991. The body also made environmental auditing mandatory for all existing industries and urged FEPA to establish EIA guidelines and procedures for operation all over the country. Okorodudu (2018) posited that one of the early built-ups to environmental impact assessment can be found in a provision in the 1991-86 national development plan to effects that feasibility studies for all projects, both private and public should be accompanied by EIA.

The principal legislation is decree 82 of 1992 which made EIA mandatory for both public and private sectors for all development projects. According to EIA Decree 82 of 1992, before any person or authority takes a decision to undertake or authorize the undertaking of any activity that may likely or significantly affect the environment or biodiversity and considerations of its environmental effects should first be taken.

The contribution to public health (especially children) and in relation to the migration, the consideration of biodiversity when carrying out projects is receiving attention in both developing and industrialized countries (Geneletti, 2016, Honrado 2013; Partidario and Gomes, 2013).

Akudo (2009) carried out a study to examine the impact of environmental awareness strategies and attitude of local farmers towards forests conservation in Odukpani local government area of Cross River State, Nigeria. The study adopted the ex-post-facto design with a population of five thousand (5000) farmers drawn from the study area. The sample size of five hundred (500) respondents was selected from the study area.

The major instrument used for data collection was a structured questionnaire respondents was a structured questionnaire tagged "environmental awareness strategies

and attitudes of farmers towards deforestation questionnaire (EASAFADQ) one way analysis of variance (ANOVA) was used for the study, simple stratified random sampling techniques and accidental sampling technique were adopted. The result of the study showed that there is a positive significant influence of environmental awareness of farmers towards deforestation in the study area.

## **2.2 Cross River Forestry Commission law and biodiversity conservation.**

Cross River State forestry commission law is a law that makes provision for the establishment of the state forestry commission and for the purpose of providing sustainable management of the forest and wildlife resources, preservation and protection of ecosystem in Cross River and other matters connected therewith (Cross River State Forestry Commission, 2010).

Egute (2018) carried out a study on modern law and local tradition in forest heritage conservation in Cameroon, the case of korup. The purpose of the study was to find out the extent to which modern laws effect local tradition in forest conservation. To realize the objective of this study, legal science analytical method, instruments of both qualitative approach (questionnaire interviews) were used. An indepth assessment of the degree of effectiveness of modern law application in Korup reveals that it is to a lesser extent effective and this impedes Cameroons adequate compliance with its biodiversity conservation obligations under international environmental agreements. The study finds that Park's protection unit plays a commendable role in fighting against illegal activities but inadequate financial resources and logistics renders the system weak.

In another study carried out by Saez (2019) on biodiversity between protected areas and local communities. A case study in Picosde Europa National Park (Northern



Spain), he collected data from 320 respondent using a structured questionnaire. Pearson product moment correlation statistic was used to analyze the data, the study revealed that there is a significant relationship between biodiversity on protected areas and local communities.

Biodiversity conservation is the most important challenge of our time. Man is all the time engaged in the pursuit of socio-economic development within the environment. For nothing influences the quality of our lives as the state of nature, and no future can be quite bleak as one in which the living resources, such as plants and animals which are essential for human survival and development are increasingly being destroyed by human misuse (Amakiri, 2010).

In a study carried out by Offiong (2016) to examine the impact of CRSFL seminar attendance and attitudes of farmers' toward deforestation in Boki and Ikom local government areas of Cross River State, Nigeria. The study used a randomized sample of four hundred and twenty-eight (428) farmers drawn from the study area. Expost-facto design was adopted for the study. The instrument used for the study was titled seminar attendance and attitudes of farmers towards deforestation, one way analysis of variance statistical tool (ANOVA) was adopted. The result of the analysis revealed that, there is positive significance influence of seminar attendance on attitude of farmers towards deforestation in the study area.

Ndifon (2015) carried out a study on the influence of environmental awareness strategies on forest conservation in Akamkpa local government area of Cross River State. The purpose of the study was to investigate whether conferencing, group discuss, workshop attendance and mass media campaign influence forest conservation, expost-facto design was used with a total sample of 638 respondents. The researcher used

questionnaire as an instrument for data collection. The result of the analysis revealed that environmental awareness strategies using conference, workshop attendance, mass media and group discussion, significantly influenced forest conservation in Akamkpa, Cross River State. It was recommended that conference on environmental legislation should be made compulsory for all forest stakeholders to educate the people on the need to conserve their forest.

Effiong (2016) conducted a research on forestry commission law 2010, socio-cultural practices and management of rainforest by rural dwellers in Calabar Education Zone, Cross River State, Nigeria using a structured questionnaire, he collected data from 537 respondents, using Pearson product correlation statistics and one way analysis of variance to analyze the data. The study revealed that there is a significant influence of shrine on management of rainforests by rural dwellers in Calabar education zone. The study also revealed that there is a significant influence of evil forest on the management of rainforest by rural dwellers in Calabar education zone.

In an attempt to conserve biodiversity and to ensure sustainable forest resources utilization, the Cross River State Government on September 9, 2010 signed the State Forestry Commission Bill into law. This law banned logging activities within the State rainforest, which saw to the folding of some wood processing companies like WEMPCO and the likes out of the state.

According to the Cross River State Forestry Commission Law (2010), the functions of the commission are stated as follows:

- a) Regulate the activities of ministries, parastatals, local government, departments, organizations, and statutory bodies as they are related to forest and forest resources and wildlife conservation issues in the state.

- b) Undertake biotechnology and other forms of research that will enhance the development of scientifically sound forestry policies and programmes in line with current conservation, socio-economic and technology options.
- c) Establish links with relevant national and international policy-making and funding bodies for the benefit of biodiversity conservation and sustainable forest in the State.
- d) Ensure sound wildlife and forest management within Cross River State.
- e) Ensure strict compliance with international conservation and treaties on natural resources management.
- f) Develop Eco-tourism and general revenue therefrom.
- g) Promote research and development, and
- h) Perform such other functions which are incidental to conservation and sustainable management of the State forest resources and revenue.

Forestry law suggests the idea of rules affecting the lives and activities of people on proper use of environmental resources (Nwosu, 2014). Take away forest laws and the rate of biodiversity depletion will be on the increase on daily basis. Therefore forest conservation is a kind of proper management of nature. It is not opposed to change, but ensures that social change does not destroy biological diversity (Tacconi, 2011).

Whitemore and Sidiyasa, (2009) consider biodiversity conservation to mean preservation, maintenance, sustainable utilization, restoration and enhancement of biological diversity. According to the Cross River State Forestry Commission Law (2010), the following departments were created by the commission in a bid to ensure biodiversity conservation;

- a) Conservation Protection and Compliance Department.

- b) Wildlife and Eco-tourism Department.
- c) Regeneration, Reforestation/Agro-forestry, Non-timber Forest Product and Medicinal Plants Department.
- d) Administrative and Human Resources Department.
- e) Finance and Accounts.
- f) Research Planning and Statistics.
- g) Community and Private Forestry.
- h) Business Development.

Agrawal and Lemons (2017), opine that biodiversity depletion rate will depend on the number of species present in a particular area of forest, the distribution of the forest and the extent of disturbance or degradation of those areas which remain forested. Agababi, Abang and Animashaun (2005), outline the following ways of conservation biodiversity: conducting in detail national survey to assess the present state and patterns of biodiversity, developing a national strategy to serve and sustainably use biodiversity, encouraging the traditional methods of agriculture / land use management and encouraging active participation /greater or total involvement of local communities and indigenous people in conserving and managing biodiversity.

Unasyuva (1993), as quoted by (Bisong 2001), contend that forest policy is concerned with the manner in which forest and tree resources are managed to serve the needs of the people and meet society's demands for goods and services that forest and forestry can provide with regards to non- material value of trees and forests. Forest policy will only be effective to the extent that they are supported by adequate institutions and resources for implementation.

The Cross River State Forest Commission Law 2010 (part iii) empowers the commission to make regulations declaring any area to be a protected area. The law provides that: any person who hunts, kills or captures any animal in contravention of any law or regulation, or is found within a protected area in circumstances showing that he was unlawfully in pursuit of any animal commits an offence under this law. Where it appears to the Conservator General that any method used for killing or capturing any animal is unduly destructive, the Commission may by regulations prohibit such methods or prescribe the conditions under which any method may be used (CRSFCL, 2010).

Where the Conservator General or any police officer or forest officer suspects that any person has been guilty of a breach of any of the provisions of this law, he may inspect and search, or authorize a subordinate officer to inspect and search, any baggage, package, public caravan without a warrant belonging to or under the control of such persons or his agent and if the officer finds any meat, head, horn, tusk, skin, feather or any live animal appearing to have been captured, in contravention of this law, he shall arrest the carriers and seize the contravening article, or may, if need be, order the police to effect the arrests. Such person(s) arrested shall be determined at the nearest convenient police station and the seized article preserved as exhibit (2) pending a formal charge to be brought before a court within 48 (forty-eight) hours. Where a live animal is confiscated in accordance with sub-section (1) of section (iii), it shall be placed without delay in a competent, recognized animal care centre for its own welfare.

The Cross River State Forestry Commission Law (2010) part II, section 24 in its quest to conserve biodiversity classified the state forest into:

- (a) State forest
- (b) Local Government forest

- (c) Community forest
- (d) Private forest
- (e) Wildlife sanctuary
- (f) Forest plantation
- (g) Strict nature reserves
- (h) Garden, park and urban forest.

Section 26, sub section 1 and 2 went further to explain that the State forestry reserve is any forest classified as such by this new law or any other law or orders having effect in the State before or after the commencement of this law. In the event of any dispute as to boundary of existing State forest reserve before the commencement of this law, the commission, in collaboration with communities recognized in the applicable forest reserves settlement order and living in a State forest reserve area and any other claimants, shall identify and re-establish the boundary within the State forest.

Section 66, sub section 1 to 7 of the CRSFCL deals with the evacuation of timber from extraction site. This section provides that:

1. A forest officer having jurisdiction over an area where timber is exploited may grant permit to any timber dealer or person interested to evacuate sawn timber from extraction site upon payment of any fee that may be prescribed in a regulation made pursuant to this law. Provided that such permit shall not exceed four days.
2. No vehicle shall evacuate sawn timber from any extraction site, unless cleared by the forest officer having jurisdiction over the areas where the timber is exploited.

3. Evacuation of timber shall be carried out between the hours of 7.30am and 6.00pm only and within the period of four days granted by the forest officer in charge of the area.
4. All timber shall be properly passed hammered and labeled as legally harvested wood product at the extraction site.
5. To give effect to the foregoing provisions the forest officer in charge of the area shall issue a permit holder, an evacuation pass which shall serve as a clearing document for timber evacuation and transportation.
6. The pass, together with the permit fee receipt and the pass hammer mark shall be presented to the forest officer at every forestry check point.
7. Notwithstanding the foregoing provisions of this section, in the case of timber to be transported outside the State, the timber dealer shall be issued with another pass by the commission's officer in charge of the area from there the timber is being evacuated subject to the payment of any fee applicable under any regulation pursuant to this law.

The basic duties of enforcement officer according to section 68, sub section 1 to 5 of the CRSFCL 2010 include:

- (1) *To monitor compliance with law, regulations and applicable association's constitution in the State forest revenue, community forest and private forest through:*
  - (a) *Regular patrols, inspection and investigations*
  - (b) *Arrest of offenders, impounding of vehicles and seizure of forest produce obtained through illegal forestry activities.*
  - (c) *Reporting offences to the commission*

- (d) *Prevention of illegal forest activities and ensuring the conservation of forest wild life and habitat as provided for this law and other applicable laws and regulations.*
- (e) *Mounting forest check points at appropriate places for the purpose of inspection to verify compliance and*
- (f) *Request from any person whom he reasonably suspects of engaging in illegal forest activities to show any permit, license, concession or registration document relevant to the forest activity.*
- (2) *Any impounded and detained vehicle, seized vessels and other tools may be disposed of on the order of a court by the commission, and proceeds there-from shall be paid into the commission's account.*
- (3) *Where the foods seized are perishable, an application shall be made by the enforcement officer to the Magistrate's Court for leave to dispose of the goods as and when necessary.*
- (4) *Notwithstanding the provision of subsection (2) and (3) of this section, the commission may dispose of any items and forest produce, which the owner might have abandoned to escape arrest and is not found, and remained unclaimed for sixty days. Provided that in the case of non timber forest products it shall be disposed of after twenty-one days.*
- (5) *Any offence committed under this law or any regulation made pursuant to this law may be reported to the police or charged to court.*

Part III of the CRSFCL, 2010 deals with presentation conservation and protection of wild animals, birds and fish. Section 69 of part III provides that the commission shall



appoint a Director of wild life and such other officers and employees as may be necessary. Section 71 sub section 1,2 and 3 of the CRSFCL 2010 provides that

- (1) *no person shall hunt, kill, capture, trade or be in possession of any of the following animals either alive or dead, or parts thereof; or any of the animals listed in the second schedule if the animal is:*
  - (a) *Immature, pregnant or nursing a young animal*
  - (b) *A female accompanied by her young unless he is authorized by special license or other permits under this law.*
- (2) *Any person who contravenes the provision of this section commits an offence and shall upon conviction be liable to a fine of not less than 50,000.00 in respect of any subsequent offence, or one year or two years imprisonment respectively or both.*
- (3) *In the case of multiple offences, each offence will be treated separately and any fine or sentence shall apply conservatively.*

In an attempt to curtail rate of wild life extinction thereby fostering the conservation of wild life section 72 to 80 of the CRSFCL 2010 provides that:

72. *No person shall take the egg of a protected animal unless the animal is kept in a domesticated state.*
73. *Unless authorized, no person shall hunt, kill or trade in any animal whatsoever whether for game or sport in any area of the State designated and delineated as a wild life sanctuary.*
74. *The commission may either in respect of the whole of the State or any local government area or other areas covered by the provisions of this law, make regulations to:*

- (a) *Remove, and add any animal to or from any of the schedules*
  - (b) *Prescribe, and add to or alter the areas in which any of the animals mentioned in the schedules may not be hunted, killed, captured or traded unless authorized under this law.*
75. *Save with the permission in writing of the commission, No person shall possess, purchase, sell or transfer any existing wildlife artifact or manufacture anything from any wildlife in the schedules, and such permission shall not be given unless the commission is satisfied that such wildlife artifact has been or is to be lawfully obtained for commercial purposes.*
76. *Notwithstanding anything contained in this law, no person shall be deemed to have committed an offence against this law by reason of his having killed or injured any animal in defense of himself or any other person;*  
*Provided that he shall report such occurrence without delay to the commission or its representative within forty-eight hours.*
- (2) *When the carcass or remains of any protected animal shall be the property of the Government and shall be reported to the nearest charge office of the commission which will decide on the disposal of the animal.*
77. *No person shall use any agricultural pesticide, fire, steel jaw traps shares, dynamic or other explosives or any other device or method designed to injure an animal regulated by the commission as harmful, for the killing of animals listed in schedule.*
78. *No person shall use any boat, motor vehicle or aircraft, which term shall include aircraft lighter than air) either for the purpose of hunting, killing or capturing any for the purpose of driving or stampeding any such animal.*

79. *Where it appears to the Conservator General that any method used for killing or capturing animals is unduly destructive, the commission may by regulations prohibit such methods or prescribe the conditions under which any method may be used.*

1. *Any person who uses any method so prohibited or uses any method otherwise than according to the conditions so prescribed commits an offence.*
2. *No person shall enter the wildlife sanctuary except with permission from the relevant authorities.*
3. *No person entering the sanctuary shall have in possession fire arms, traps, or any device capable of harming the animals and*
4. *No person entering the protected areas shall be accompanied by domestic animals.*

80. 1) *the commission may make regulations declaring any area a protected area.*

- 2) *Any person who hunts, kills or captures any animal in contravention of any law or regulations, or is found within a protected area in circumstances showing that he was unlawfully in pursuit of any animal commits an offence under this law.*

Section 95 of the CRSFCL provides that all cases of conviction for any offence under this law, any protected animal or other remains there, be found in possession of the offender or his agent, unless proven to the satisfaction of the court that they were lawfully obtained, shall be forfeited to the commission.

Under the general duties and powers of the enforcement officers, section 96-98 of the CRSFCL provides that:

96 A forest officer, administrative officer, police officer or Association enforcement officer within its territory may stop any vehicle, vessel, or van engaged in transporting or moving any forest produce or protected animal on any road or inland waterway for purpose of preventing the commission of any offence against this law for inspection.

97. Any forest officer, administrative officer or police officer may arrest without a warrant, any person reasonably suspected of having committed an offence under this law, if such person refuses to give his name and address which is believed to be false, or if there is reason to believe that he may abscond. Provided that the person arrested shall be taken before a court or to the nearest police station within 24 hours.

98. 1) Any Administrative officer, forest officer or police officer, may himself or by any person acting under his directions, seize any animal or forest produce reasonably suspected of having been unlawfully removed and any instrument or thing reasonably suspected of having been used in the commission of any offence under this law.

2) No suit shall lie against the officer, or person acting under his direction, in respect of any deterioration in quality or value of any forest produce, instrument or thing seized in accordance with the provisions of subsection (1) of this section.

3) Where the person suspected of having committed the offence in respect of which the forest produce has been seized has not been charged and the offence has not been compounded, the officer after obtaining an order of a magistrate may:

- (a) Sell such forest produce and pay to the forest trust fund the proceeds thereof, after deducting the expenses of the sale.
- (b) Allocate such forest produce to the use of the government; or
- (c) Destroy such forest produce.

The United Nations office on drug and crime (2018) asserts that the implementation of natural resources law is understood as an extension and integral part in resources management. Therefore, the manner of resource assessment and inventories, specific investigation and arrest of offenders are elements of an implementation system. Under the Nigerian legal system, forestry laws are essentially statute laws. These laws are passed by a legislative body be it under military government or under civilian democracy. Forestry law in Cross River State was actually enacted in 1999 and amended and became operational on the 8<sup>th</sup> September 2010 which is subject for amendment by virtue of the provisions of section 28 of the forestry laws.

Anim and Anyandike (2012) conducted a study on the assessment of forest management institutions and their initiatives in the rainforest communities in Cross River State. The study revealed that various kinds of laws exist in the management of forests, lands, reserves and National Park.

A study by Otudei (2014), on political ecology of forest management in Ghana, the study focused on those included in the control of reserve forest in town and how their relationship affects forest conservation performance. The study collected primary data through 35 structured interviews, respondents of the study include farmers, staff of the forest division of forestry commission, Bush mongers of logging companies, staff of the municipal assembly and chiefs. The result of the investigation revealed that government policies on forest management have given much power to state forestry commission.

Holligan and Aldubak (2019) conducted a study on critical justice, response to wildlife and forest crime in Cambodia, revealed that government at enacted forestry and protected legislation that attract worthy punishment for violators of forest resources.

Kumar and Albert (2019) conducted a study on protecting developing countries forest enforcement in theory and practice in Tanzania and Eastern India. The study revealed that even though implementation suffers under-funded agencies underpaid staffs with low incentives however, it is still the central machine for controlling resources extraction from forest reserves.

Mbin (2014) conducted a study difficulties encountered by the Cross River State Anti-Deforestation commission in Obubra Local government area. The study revealed high level of forest damage. Thus, this trend has given rise to different policies and management strategies aim at curbing the rate of deforestation currently plaguing the state. The study also revealed that government take lead in this threat to our environment by making laws, legislations, policies and strategies on forest matters.

Ayotunde and Ada (2015) conducted a study on preservation of biodiversity in Central Cross River State, Nigeria with the help of structured questionnaire used for collecting data for the study, it was revealed that fish and various plants and animals exist in the area as it is believed that killing or harvesting of animals or plants totem is disobedience and usually followed by death incurable wounds as punishment for offenders in the area. These totems are traditional environmental laws that help in the conservation of biodiversity.

### **2.3 Endangered species Act, CAP E9, LFN 2004 Awareness and Biodiversity Conservation.**

Endangered species act focuses on the protection and management of Nigerian wildlife and some of their species in danger of extinction as a result of over exploitation (Endangered species Act, CAP E9, LFN 2004). These sections are note worthy:

- a. Section 1 prohibits, except under a valid license, the hunting, capture or trade in animal species, either presently or likely to be in danger of extinction.
- b. Section 5 defines the liability of any offender under this act.
- c. Section 7 provides for regulation to be made necessary for environmental prevention and control as regards the purposes of the act.

Taylor (2019) conducted a study on the effectiveness of the endangered species act: a qualitative analysis adopting the survey research design and Pearson Product Correlation statistic, a population for 1095 species listed as threatened and endangered under the endangered species act were correlates with the length of time the species were listed and the presence or absence of critical habitat and recovery plans. The result revealed that species with critical habitat for two or more years were more than twice likely to have an improving population trend and less than half as likely to be declining as species without. However, Gonen and Guller (2018) observed that has minimal flexibility and there are perceived delay in the implementation of the Act.

Fischman, Castelli and Meresky (2021) carried out a study on collaborative governance under the endangered species act: an empirical analysis of protected regulations. The article examines the nearly two hundred ESA, protective regulation that tailored federal restrictions to the ecological and social circumstances of particular extinction threats. The study explores how the rules manifest collaborative governance, as well as the extent to which they promote imperiled species recovery. The result showed that collaborative governance transforms the ESA from a statute prohibiting certain outcomes (such as harm or jeopardy to a species) to regulatory programme implementing collaboratively crafted best practices along the lives of pollution control statues.

Armitage (2008) opined that, endangered species act was passed in order to give effect to Nigeria's international obligation and under the convention on international trade in endangered species to join in controlling international trade and traffic in endangered wild species.

According to Greenbolt (2012), the complexity of the planets ecosystems means that the loss of any species has unexpected consequences. The stronger the impact of biodiversity, the stronger the likelihood of chain reaction with unpredictable negative effects.

The UK was one of the first countries to follow up its commitment under the convention on biodiversity. According to Rousel (2017), the UK Action Plan was published in January 1994. A UK biodiversity steering group was appointed, which published a report entitled Meeting the Rio "Challenge" in 1995. The report contains action plans for over 100 endangered species and 14 key habitats, together with a commitment to produce further plans. The steering group proposed the use of a standard methodology for the production of local biodiversity action plans. This would be based upon the priorities of the UK plan, but would be supplemented by local priorities.

Ojeda (2015), noted that International Conservation Organization plays an important role in publicizing environmental information. International Union for Conservation of Nature (IUCN) was responsible for the roles of compiling lists of threatened species as a means of drawing attention to the plight of species faced with extinction. These lists became known as Red Data Books (RDB). In these, species are placed into one of several categories which range from extinct to 'Vulnerable' or 'rare' depending on the degree of threat to their existence.



The first internationally applicable RDB was published in 1996. The 'red' stands for 'danger' and the concept has since been adopted by many different countries, including Nigeria. RDBS points the way for government agencies charged with environmental protection, as well as for non-governmental organizations (NGOs) concerned about maintaining diversity.

Fountain (2007) observed that, organizations such as WWF, founded in 1961 by Sir Peter Scott, the eminent naturalist, are highly effective in publicizing the plight of endangered species worldwide. They also play a large role in raising charitable funds towards projects concerned with saving wildlife in various areas of the globe. Many of such conservation organizations pay for the basic resources needed by under-developed countries to enforce their laws. This can be as basic as providing a means of transport and salaries for enforcement officers. However, how effective these campaigns and projects are in the long run remains to be seen.

Ayotunde and Ada (2013) conducted a study on control of biodiversity in Central Cross River State. These are Abi, Obubra, Ikom, Yakurr. Data were obtained through structured questionnaire and indepth guided interviews. The results shows that a total of two hundred and six (206.5) hectares of land forest and water is protected for the conservation. Animal and plant called sacred area which houses their traditional gods which had 127 hectares of forest and aquatic area respectively. The whole Aboti the black forest is conserved by Igbo-Imabana community. The forest is completely virgin and dedicated to the gods, who serve as protectors of the people.

Onyekwelu and Olusola (2014) conducted a study on the activity of sacred grove in in-biodiversity conservation in rainforest zone of South-western Nigeria. The role of groves in biodiversity conservation in South-Western Nigeria was investigated in Osun-

Osogbo and Igbo-Olodumare sacred groves and compared with degraded and primary forest. All trees (diameter at breast height (dbh) 10cm) were identified and their dbh values measured in each of the 48 temporary samples plots of 20mx10m quadrant. Osun-Osogbo grove had the highest species abundance (61), diversity index (3.54), number of seedlings (66 species). Species evenness (0.66) and percentage of endangered tree species (32.6%) which indicated its importance in in-situ biodiversity conservation. The lower diversity indices of Igbo-Olodumare grove is attributed to its rockiness and low-sacredness, which has led to encroachment sacred groves were preserved by fear of diety, cultural importance and place of worship. Tree feeling within groves were regarded as abomination and sacrifice must be offered before any tree was felled, rules and taboos are used to preserve/protect the groves.

Pore and Sayer (2012) noted that, biodiversity is seriously threatened as a result of trade in endangered species. The international trade in wildlife is estimated to be €12 billion a year. Up to a quarter of that trade is almost certainly illegal. The main piece of legislation limiting trade in Endangered Species is CITES (the Convention on International Trade in Endangered species). This is a UN convention which came into effect in 1975. CITES prohibits commercial trade in endangered species of plants and animals. Legitimate international trade in species which are not now threatened, but which may become so if trade is not controlled, is allowed via a permit system. Responsibility for implementing it lies with signatory nations.

Many of the problems involved in protecting habitats and species arise because local people either need to use the resources available in sensitive habitats to provide the necessities for subsistence or survival or traditionally have always done so. UNESCO,

through its man and Biosphere programme, has set up a number of internationally recognized biosphere reserves in an attempt to address this problem.

Owolabi (2010), asserts that the world has a vast range of different species which are all inextricably linked. He further observes that the inter-dependence of species evolved over millions of years and underpins the complex diversity of life which exists on this planet. Babiari, and Burguesse (2006), define an endangered species as a species of organisms facing a very high risk of extinction. The phrase is used vaguely in common parlance for any species fitting this description, but it is used by conservation biologists to typically refer to those designated endangered in the IUCN Red list where it is the second most severe conservation status for wild populations, following critically endangered. There are currently 3079 animal and 2655 plants classified as endangered worldwide compared with 1998 levels of 1102 and 1197, respectively (IUCN Red list version 2012). The amount, population trend, and conservation status of each species can be found in the list of organisms by population.

Many nations have laws offering protection to conservation of resilient species. For example, forbidding hunting, restricting land development or creating preserves. Conservation status of a species is an indicator of the likelihood of that endangered species becoming extinct. Many factors are taken into account when assessing the conservation status of a species, including statistics such as the number remaining, the overall increase or decrease in the population overtime, breeding success rates, known threats, and so on (Nature serve, April 2007). The IUCN Red list of Threatened species is the best-known worldwide conservation status listing and ranking system (IUCN, 2011).

It was estimated that over 100% of all living species on earth are at risk of going extinct (Threatened species 2012). Internationally, 199 countries have signed an accord

agreeing to create biodiversity action. Action plans to protect endangered and other threatened species.

IUCN Red list refers to a specific category of threatened species and may include critically endangered species as a specific category of imperilment, rather than as a general term. Under the IUCN categories and criteria, endangered species is between critically endangered and vulnerable. Also critically endangered species may also be counted as endangered species and fill all the criteria.

The more general term used by the IUCN for species at risk of extinction is 'threatened species', which also includes the less-at-risk category of vulnerable species together with endangered and critically endangered.

#### IUCN List of Endangered Species

- i. Critically endangered: faces an extremely high risk of extinction in the immediate future. Example addax, African wild ass, AlabemeCarefish, Amur Leopard, Araten forest turtle, Asiatic cheetah, scolit bacteria cannel and Brazilian merganser.
- ii. Endangered: faces very high risk of extinction in the near future. Example: African penguin, African wild dog, Aisan elephant, Asiatic lion, blue whale, Bonobo, Bornean orangutan and eastern lowland gorillas.

Under the Endangered Species Act in the United States, "endangered is the more protected of the two categories of "Endangered" and threatened". In the United States alone, the "known species threatened with extinction is ten times higher than the number protected under the Endangered Species Act" (Wilcove& Master 2008: p 414)

Some endangered species laws are controversial, typical areas of controversy include: criteria for placing a species on the endangered species list, and criteria for

removing a species from the list once its population has recovered, whether restriction on land development constitutes "taking" of land by the government the related question of whether private land owners should be compensated for the loss of uses of their lands and obtain reasonable exceptions to protection laws. Also lobbying from hunters and various industries like the petroleum industry, construction industry and logging, has been an obstacle in establishing endangered species laws.

In the US, the Bush Administration lifted a policy that requires federal officials to consult a wildlife expert before taking actions that could damage endangered species. Under the Obama Administration, this policy has been reinstated (FWS, Gov, 2009).

Being listed as an endangered species can have negative effect since it could make a species more desirable for collections and Purchase. This effect is potentially reducible such as in China where commercially farmed turtles may be reducing some of the pressure to porch Endangered Species (Subuti, 2006).

The effectiveness of the Endangered Species Act, which coined the term "endangered species", has been questioned by business advocacy groups and their publications, but is nevertheless widely recognized as an effective recovery tool by wildlife scientists who work with the species. Nineteen species have been delisted and recovered (USFWS Threatened and Endangered Species System (TESS) 2007) and 93% of listed species in he Northeastern United States have a Recovery Act 2002).

Currently, 1556 known species in the world have been identified as endangered, or near extinction, and are under protection by government law. (Glenn, 2006 Webpage). This approximation, however, does not take into consideration the number of species threatened with endangerment that are not included under the protection of such laws as the Endangered Species Act. According to nature serve's global conservation status,

approximately thirteen percent of vertebrates (excluding marine fish), seventeen percent of vascular plants and six to eighteen percent of fungi are considered endangered (Wilcover and Master, 2008). Thus, in total, between seven and eighteen percent of the United States known animals, fungi, and plants are near extinction (Wilcover & Master, 2004:p. 416). This total is substantially more than the number of species protected under the Endangered Species Act in the United States.

Species have evolved throughout the course of natural history, and fossil record is filled with evidence of extinctions, some of which have been sudden and catastrophic. Ecologists believe that we are in such an era of rapid species extinction today. The most prominent current cause is human activity which brings about loss of habitat for species and consequently biodiversity loss, pollution and environmental degradation. Species biodiversity has a number of health benefits for people, including maintenance of stable environmental processes that support human life, provision of biological substances that may be useful in pharmaceutical and other applications and recreational opportunities.

Enacted in 1973, the Endangered Species Act emerged as a result of concerns about extinctions of “various species of fish, wildlife, and plants in the United States and sum understanding that many other species had become “so depleted in numbers that they are in danger of or threatened with extinction”. In the act an endangered species is defined as one for which there is a danger of extinction in “all or a significant portion of its range” a threatened species in the foreseeable future. The Endangered Species Act replaced an earlier statute, the Endangered Species Conservation Act of 1969.

The Endangered Species Act was revolutionary in that it explicitly recognized that to protect species one must conserve “the ecosystems upon which endangered species and threatened species depend”. Specifically, “critical habitat” is the area occupied by a

species requiring protection that contains the physical biological features that are essential to the conservation of the species.

In Australia, the Federal government drafted the Endangered Species Protection Act enacted in 1992. This legislation now subsumed under the Environment Protection and Biodiversity Conservation Act 1999, operated only at Federal level. The States and territories have enacted a range of legislations to protect endangered species in their jurisdictions. Some have incorporated provisions within national parks and wildlife legislation; others also introduced species legislations (Joseph, 2003).

The Endangered Species Act incorporated the concept of sustainable development, known in Australia as Ecologically Sustainable Development (ESD). The Act defines the concept of “ecologically sustainable use of natural resources”, a definition which illustrates the influence of the Conventional Biological Diversity (CBD). The Act refers to the concept of sustainable use, stressing in its preamble the importance of, the need to promote international, regional and global cooperation among States and intergovernmental organizations and non-governmental sector for the conservation of biological diversity and the sustainable use of its components (Roussel 2017).

#### **2.4 Conventional biological diversity and biodiversity conservation**

The Convention of Biological Diversity (CBD) and Endanger Species Act are paramount in biodiversity conservation worldwide. The Article 2 of the CBD defines biological diversity as the variability amongst living organism from all source including interalia, terrestrial, marine and other aquatic ecosystem and the ecological complexes of which they are part ; this include diversity within species, between species and of the ecosystem.

The convention on biological diversity (CBD) is the internationally legal instrument for the conservation of biological diversity, of the sustainable use of these components and the fair and equitable sharing of the benefits arising, out of utilization of genetic resources that has been ratified by 196 nations.

Matthew (2016) conducted a study on effectiveness of convention of biodiversity on biodiversity conservation in Jos, Plateau, state. The purpose of the study was to examine the effectiveness of the convention in conserving biological diversity. The survey research design was used. The sample study was 300 respondents, the instrument used for the study was the questionnaire and data was analyzed using Analysis of Variance (ANOVA) the result reveal that the convention on biological diversity has contributed greatly in the conservation of biodiversity in the study area. Jonathan (2020) conducted a study on effectiveness of convention on biological diversity in environmental resource management in Akamkpa Local government of Cross River State. The purpose of the study was to find out the effectiveness of convention of biological diversity in environmental management. The expost-facto research design was used. Questionnaire was used to collect data 320 respondents (sample). The data was analyze using Analysis of Variance (ANOVA), the result revealed that there was significant strongly, influence of convention of biological diversity on avail environmental management.

In Nigeria, the convention on biological diversity was ratified in 1994. The convention on biological diversity opened for signatures at the famous "Earth Summit" in Rio de Janeiro, Brazil in 1992. This convention was one of the outcomes of the world community's commitment to sustainable development. The major objective is to develop national strategies for the conservation of biodiversity, the sustainable use of its



component and the sharing of benefits arising from the use of genetic resources. Enobakhere, Orem and Onah (2018) investigated assignment of public awareness and knowledge of media campaigns on environmental issues in south-south zone. The purpose of the study was to examine public awareness and knowledge of media campaign on environmental issues in south-south state, Nigeria. The authors argue that media campaigns are strong instruments in public awareness on environmental issues. However, despite the remarkable progress made by media in providing environmental information in Nigeria, there is still substantial constraint to effective management and development of the environment. This mismanagement of environment has literally contributed to the problems of erosion and deforestation which has led to deterioration of the environs. Data was collected through questionnaire: a survey method was adopted to select sample of 500 respondents using the Yaro Yamane's formula and inclusive amongst the poser were inquired (i) whether the respondents are aware of media campaign (ii), whether the indigene have knowledge in regards to environmental management. The study revealed that due to media campaign attitudes of respondents concerning environmental issues has changed positively towards the environment that is clean for a healthy living and most respondents prefer listening to environmental campaigns on radio stations, rather than by any other means of information.

The countries that signed the convention when it came into force in 1993 are committed to produce national biodiversity strategies and action plans. The convention on biological diversity was inspired by the world community's growing commitment to sustainable development. It represents a dramatic step toward in the conservation of biological diversity.

Another landmark treaty to tackle environmental issues and especially biodiversity was the United Nations conference on environment and development (UNCED) wherein more than 100 world leaders and 30,000 other participants from 150 countries met St. Rio de Janeiro Brazil in 1992. The world summit produced a fivefold resultant effect including the Rio Declaration on Environment and Development (ILM), Agent 21 (UNDOCA/CONF.1992), the non-legally binding authoritative of principles for a global consensus on the management, conservation and sustainable development of all types of forests (IBM), the ceremonial signing of the United Nations Framework Convention on Climate (UNEP, 1987) (UNFCCC) and the biological diversity convention (CBD) (ILM, 1952).

Philip, Akintoye, Olorindamim, Nkpena et al (2014) pointed out that 19% of the tropical forest zones in Cross River State has been lost through deforestation. The current national three campaigns is a more ritual as well as radio, television propaganda which should be designed and the negative impact of the forest made known to be masses to stern the tide of biodiversity loss. According to Iyorza and Bassey-duke (2016), the public has the right of access to environmental information held by public authority and making information about the environment available in order to achieve sustainable development, with access to environmental information, the people have full knowledge of the implication of their activities on the environment and are able to participate more effectively in decision-making processes that affect the environment.

The government, humanitarian groups and non governmental agencies are doing everything at their disposal to ensure that there is adequate awareness creation on forest preservation, to carry out this task successfully, environmental education and extension officers charged with the responsibility of stimulating the relevant awareness and

generating appropriate attitude among the people on issues concerning deforestation and other environmental problems should be trained and deployed to the forest zones (Bullem, 2012).

The convention on Biological diversity is used to guide the development of legislative mechanism in the African countries and elsewhere (Ojeda, 2005). The environmental law programme of UNEP has also been closely involved in various aspects of biodiversity law at an international level, and carried toward the work of IUCN in preparing the final drafts of the convention on biological diversity. The strategy adopted by CBD is promote, in consultation and cooperation with the conference of the parties and the secretariat of the convention on biological diversity, the development and implementation of national, regional and global policies and legal instruments, as appropriate, for the conservation and sustainable use of biological diversity in all ecosystems, for the fair and equitable sharing of benefits arising out of such use and for biosafety (Ojeda, 2005).

For CBD to be effective, its secretariat is financed from contributions made by parties and non-parties to the following three trust funds established by the conference of the parties.

- i The General Trust Fund for the Convention on Biological Diversity (By Trust Fund), which is the major source of funding for the secretariat and is funded from the assessed contributions of parties to the CBD, based on the United nations scales of assessment;
- ii The Special Voluntary Trust Fund (B2 Trust fund) for facilitating participation of parties in the convention process; and

- iii The Special Voluntary Trust Fund (BE Trust Fund) for additional voluntary contributions in support of approved activities on the convention on Biological diversity.

The BE and BZ Trust Funds are voluntary Trust Funds through which countries and organizations can support important work of the secretariat which is not provided for within the regular budget. The BZ Trust Fund is used to cover travel costs of developing country parties, in particular the least developed and small Island developing states, and other parties with economies in transition, to enable them to attend the meetings and conference convened by the secretariat.

CBD has been effective in biodiversity conservation through the following ways:

- a) Promoting the development and application of domestic laws for the conservation and sustainable use of biological diversity insitu and exsitu, including thorough ecosystem management and land use policies, as well as for the fair and equitable sharing the benefits arising out of the utilization of genetic resources and for biosafety;
- b) Assist developing countries, particularly the least developed among them and the small Island developing states, and countries with economies in transition, in the development and application of legislative, administrative and institutional measures for the implementation of international instruments concerning biological diversity;
- c) Contribution to the analysis of the relationship between intellectual property rights, knowledge, innovations and practices of local and indigenous communities and the conservation and use of biological diversity in the context of studying ways and means to prevent and use biological diversity and resolve conflict or incoherence

between obligations under environmental and trade related international agreements.

- d) Examine possible international responses to challenges posed by harmful invasive species, taking into account the Cross –Sector nature of those problems and work underway in other international flora;
- e) Support the implementation of relevant international environmental agreement in particular Cartagena Protocol on Biosafety.

According to Berkes, (2009), the best way to implement CBD is through national mechanism. International environmental law can be effective only when implemented by individual countries preferably acting, in concert with others. This is recognized in the approach of the CBD, which includes a wide range of provisions promoting national policies and subsequent legislations. Consistent with other conventions on the environment; these provisions are reasonably general and do not oblige States to adopt specific frameworks or measures, as stated by Birni and Boyle (2011).

The convention's aim is provide a broad global framework for the development of measures to conserve the earth's biodiversity, within which State parties will themselves develop the measures necessary to achieve the objectives that it set out. It does not list species or habitats to be protected. States are required to develop a national strategy and plan a program for conservation of biodiversity and suitable use of biological resources; the further negotiation of annexes and protocol is emphasized (Agrawal and Lems 2007). The main provisions in the convention in terms of development of legislation and planning mechanism can be summarized as follows;

- i A preamble paragraph notes: "Aware of the general lack of information and knowledge regarding biological diversity and the urgent need to develop

scientific, technical and institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures”

- ii Develop national strategies, plans or programs for the conservation and sustainable use of biological diversity and integrate, as far as possible and appropriate the conservation and sustainable use of biological diversity into sectoral or Cross –Sectoral plans, programs and policies (Article 6 of CBD),
- iii Develop or maintain necessary legislation and /or other regulatory provisions for the protection of threatened species and populations for in site conservation (Article 7):
- iv Regulate and manage collection of biological resources from natural habitats for ex situ conservation so as not to threaten ecosystems and in situ populations of species (Article 8);
- v Introduce appropriate procedures for environmental impact assessment of proposed projects that are likely to have significant adverse effects on biological diversity (Article 14);
- vi Take legislative, administrative or policy measures with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from commercial and other utilization of genetic resources (Article 15 (7)).
- vii Take legislative, administrative or policy measure in relation to providing access to and transfer of technology, on fair and most favourable terms in relation to developing countries, while recognizing the existence and influence of patents and other intellectual property rights in relation to technology concerning genetic resources (Article 16).

Taken to their full extent, the CBD provisions would involve overhauling national legislative and policy mechanism to conform to the obligations of state parties under the convention. The CBD is one of a number of conventions which provide national obligations in relations to biodiversity and require a comprehensive and consistent approach.

Greenbolt (2012) recognized that, the main implementation measures for CBD are “national strategies, plans or programs, to be developed in accordance with each county’s particular conditions and capabilities. The strategy States that the conservation of biological diversity should be integrated in decision-making at all levels of government. A specific objective is devoted to ensuring that the Biological diversity strategy is complemented by State and territory and bioregional strategies supported by effective legislation where necessary.

Gingered by CBD and Endangered Species Act, NGOs in Nigeria have been in the forefront of biodiversity conservation. With the aid of these environmental legislations, NGOs are able to operate successfully in Cross River State. The Nigeria Conservation Foundation (NCF) established in 1992 is Nigeria’s oldest conservation NGO. It has been an effective and influential body for wildlife conservation and its work helped to create the Federal National parks services and the national parks themselves (Caldecott and Morakinyo, 2017). Morakinyo (2002), notes that Pandrillus, a much smaller NGO, conscious of the CBD provisions has vigorously promoted a wildlife sanctuary in Afi River Forest reserves in Cross River State. The main aim of pandrillus is to conserve the highly endangered drill monkey through breeding, and rehabilitation of chimpanzees.

Morankinyo (2002) listed the activities of CERCOPAN to include protection of primates of south eastern Nigeria and their rainforest habitat in an attempt to comply with

CBD. CERCOPAN has a primate rehabilitation center in Cross River State (Calabar) where over 50 primates are rehabilitated following the rescue from bush meat trade.

## **2.5 Federal National Park Management Act CAP N65, LFN 2004 Awareness and Biodiversity Conservation.**

The national park is concerned with the establishment of protectorates used for resources conservation, water catchment protection, wildlife conservation and maintenance of the national ecosystem balance (National Park Act, AP, N65, LFN 2004).

Muhumuza (2017) conducted study on factors affecting the success of conserving biodiversity in national parks: a review of case study from Africa. He revealed that two approaches are commonly used to sustain biodiversity in national parks. The study seeks to find out the reason some approaches adopted in the management of the parks have been successful and others unsuccessful at conserving biodiversity in national parks. A metadata analysis of 123 documents on case studies about conservation of biodiversity in national parks was conducted. A series of search engines was used to find papers for review. Results showed that all the factors responsible for both the success and failure of for conserving biodiversity in national parks in various contexts were socio-economic and cultural in nature. The highest percentage in both successful case studies (66%) and unsuccessful case studies (55%) was associated with the creation and management of the parks. These results suggest that future conservation approaches in National Parks in Africa should place more emphasis on the human dimension of biodiversity conservation of the purely scientific studies of species and habitats in national park.

Isugo and Obiola (2015) carried out a study on community participation in wildlife conservation and protection in Oban Hills area of Cross River State, Nigeria. The purpose of the study was to examine the nature and extent of community-based wildlife



management in the area by identifying an effective ethical way of investigating the goals of wildlife conservation with the need of the rural poor in the tropics. A descriptive survey method was used to collect data; five villages were selected based on their proximity to the park while simple random sampling technique was used to draw a sample of 288 respondents. Data was obtained through interview guides and questionnaire with the participants in the environment. The findings of the analysis indicated that community leaders and youths play key role of educating their members on the importance of wildlife conservation and guarding their forest from poachers respectively.

The finding of the above reviewed study was considered of relevance to this study's review based on the recommendation of the researchers that the Cross River National Park, (CRNP) should enforce policy through public enlightenment, arrest of violators and liaise with other government agencies and enforcement of local taboo within the communities.

Bassi Monguno and Joseph (2017) carried out a research on community participation in environmental conservation and protection in Kida community, Hawul of Bornu state, Nigeria. The purpose of the study is to assess the environmental management system in the areas especially community involvement in protecting the environment. The population of the study constitutes 120,733 with a sample of 150 respondents using questionnaire for data collection. The researcher focused on group discussions and in-depth interviews. The findings revealed that there is significant difference between problems associated with indiscriminate tree felling, bush burning, overgrazing and ignorance among community members willingness in participation.

It was recommended among others that government important role in to boost community participation through replanting of trees, patrolling and employment of

conservation workers. In addition, public enlightenment should be given consideration in the community on the dangers of not protecting and conserving the environment.

Ayaa and Waswa (2015) carried out a study in indigenous knowledge systems on attitudes of farmers towards deforestation in southern Kenya region. Survey research design was employed for the study. The population of the study was one thousand nine hundred and two (1902), the sample size for the study was nine hundred and fifty one (951) respondents drawn from the study area. Simple and stratified sampling techniques were adopted for the study, questionnaire was the only instrument used for the study tagged "indigenous knowledge systems and attitudes of farmers towards deforestation questionnaire (IKSFDQ) was used for data collection. One-way analysis of variance (ANOVA) was the statistical tool used for data analysis. The use of indigenous knowledge systems has a great impact on attitude of farmers towards deforestation in rain forest zones.

The 1991 National Park Decree 36 established five national parks as well as a governing board for the preservation and conservation of vegetation and wild animals in the national parks, as well as advising government of the adequacy and efficient utilization of facilities for the growth and protection of floral and faunal resources (Asuquo, 2016). The Federal Government policy goal on the conservation of biodiversity is to ensure sustainable use of forest resources and preservation of the many benefits accruing from soil, water, and wildlife conservation for economic development. Among the current priority programmes in Nigeria are the extension of national parks and reserves and the compilation of the flora and fauna of Nigeria (Ogar, 2009).

The Nigerian Biodiversity Strategy and Action Plan (NBSAP) reviews the status of biodiversity conservation in Nigeria in an attempt to fill the gaps identified in the

country study programme and develop strategies and action plans to bridge the gaps in the conservation efforts. The first draft report for four selected eco-regions has been produced and circulated among stakeholders for their discussion and input. (Oyeshola, 2008). The inputs from the planned stakeholder workshop will be incorporated into the second draft report to be discussed at national workshop pending the presentation of the final report to the government for approval.

Resulting from governments efforts in biodiversity conservation, according to Owolanbi (2010), the following achievements have been made:

- a) There are 32 game reserves/sanctuaries and six national parks in place covering a total of about 4,293,800 ha scattered in different areas of the country;
- b) There are 12 strict nature reserves; and
- c) There are 13 proposed game reserves/national parks covering about 372,000 ha located across the country.

The Cross River State Government believed that a large functioning national park will impact favourably on tourism development and the maintenance of climate and water supply for the State as a whole.

The establishment of the Cross River National Park has helped a great deal in strengthening village institutions and increase incomes following investment by farmers in new improved indigenous techniques. Lands under intensive sustainable use, stable agro-forestry or intact and regenerating forest cover are extended.

Lawal (2008), noted that, the first national park was established in 1872 at Yellowstone in the United States of America. Since then, many more national parks have been created all over the world. Established in the 1920s and 1930s, national parks in eastern and southern Africa have been particularly successful. They have become major

tourist attractions generating significant sources of foreign exchange earnings for their countries.

In Nigeria, the idea of national park establishment is a very recent development (Lawan, 2005). Lawan further noted that, in 1979 Kainji Lake was established as the first national park in the country. Then Chad Basin, Cross River, Gasha-gunti, old Oyo and Yankari were established to bring the number to six national parks. In 1999 Kamuku and Okomu national parks were added through the promulgation of Decree 46 of 1999, bringing the number of national parks to eight. Among other objectives, these parks were established to protect representative samples of Nigeria's varied ecosystem from the semi arid or Sahel to Sudan and Guinness Savannas, wetlands, rainforest, mountain etc. It is encouraging to note that these national parks are all quietly making progress. It is true that our national parks generally lack the spectacular concentrations of large wild animal population usually associated with African National Parks. However, in terms of biological diversity (biodiversity), our national parks can stand the test of time. Lawan (2005), further observed that, Nigeria as a whole supports more than 274 different species of mammals, 831 species of birds and about 4,600 species of plants.

Amakiri (2010), observed that, the efficacy of national park could be seen in the ecological processes and life support systems, protection of the environment, particularly watershed areas. They play important roles in science and education; they preserve our indigenous genetic resources that are the basis of any meaningful advancement in our Agricultural system and technology, etc. Indeed given our high population and our dependence on natural sources for much of our food, fiber and medicine, the role national parks play far outweigh all other benefits and is not quantifiable in monetary terms.

Cross River State is currently beset with many environmental problems such as deforestation, drought, desertification, sheet, gully and coastal erosion and flooding, loss of biological resources, etc. without doubt, the national parks stand to offer some antidote to these ills. The national parks are essentially today's investments for Nigeria's tomorrow so that generations yet unborn can have a secure future.

Lawan (2005) notes that, the above mentioned benefits of national park are made possible by the National Park Decree N0.36 of 1991. According to this Decree, the Nigeria National Park Service has the statutory responsibilities for the following amongst others:

- i) To preserve, enhance, protect and manage vegetation and wild animals in the National parks;
- ii) To advise the Federal Government on the development and preservation policy of the National parks including the financial requirements for the implementation of such policy, and
- iii) To advise the Federal Government on the declaration of areas which for the purpose of protecting wildlife species, biotic communities, sites of special interest or of aesthetic value, the service considered may be declared as national parks under this Act.

The major objectives of National Park are hence geared towards:

- i. The conservation of selective and representative samples of wild communities in Nigeria.
- ii. The establishment of an ecologically and geographically balanced network of protected areas under the jurisdiction and control of the Federal Government,
- iii. The protection of endangered species of wild plants and animals and their habitats;

- iv. The conservation of wildlife throughout Nigeria also that the abundance and diversity of their species are maintained at the optimum level commensurate with other forms of land use in order to ensure the continued existence of wildlife for the purpose of their sustainable utilization for the benefit of the people;
- v. The preservation of outstanding scenic, natural, scientific, recreational and other values in the national parks and
- vi. The protection and maintenance of crucial wet lands and water Catchment areas.

According to the National Park Act 36 of 1991, the mission of national park is to manage and regulate the use of these unique ecosystems designated as national parks of such means and measures to preserve and conserve Nigeria heritage, particularly the fauna and flora, the habitats they live in, and the unique sceneries they afford. Its mission is to also provide human benefits and enjoyment in such manner and by such means so that these are left unspoiled for generations to come.

According to the National Park Act 36 of 1991, the vision of the national parks is to develop a network of national parks that can compete favourably with other national parks in the world. To achieve this, the park service is making efforts to put in place operational management plans for each park, and systems plan for the entire country. A national park system that meets the hopes and aspirations of Nigerians, and indeed the whole world, in preserving and protecting our natural heritage and the cultural relics that enliven them for generations to come.

Igwe (2011), Observed that, the inception of the Cross River National Park (CRNP) had contributed greatly to Biodiversity conservation in Cross River State. Cross River State has benefited immensely from all the benefits attached to national parks, courtesy of the National Park Decree 36 of 1991.

While the FME is for natural resource management, the responsibility for conservation and management of natural resources with the protected areas that will be assisted by the Global Environment Facility (GEF) component of LEEMP resides with National Park Services Decree No. 46 of 1999. More specifically, the national park services are responsible for the conservation of selected representative examples of wildlife communities in Nigeria the establishment of an ecologically and geographically balanced network of protected areas under the jurisdiction and control of the Federal Government and among other responsibilities, for the conservation of biodiversity in Nigeria (Cross River National Park 2003). One of the functions of the national park service given in Decree No. 46 is to cooperate with other agencies to promote and develop alternatives to wildlife as a source of income for the rural population.

It was recommended that conference on environmental legislation should be made compulsory for all forest stakeholders to educate the people on the need to conserve their forest.

## **2.6 National environmental standard, regulations enforcement agency act 2007, Act No. 25 Awareness and biodiversity conservation**

Administered by the Ministry of Environment, the national environment standards and regulation enforcement agency (NESREA) Act of 2007 repealed the federal environmental protection agency (FEPA) Act. NESREA is the embodiment of laws and regulative focus on the protection and sustainable development of the environment and its natural resources. The following sections are worth noting:

- a. Section 7 provides authority to ensure compliance with environmental laws, local and international on environmental sanitation and pollution.

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According to Ladan (2011) the National Environmental Standards and regulation Enforcement Agency is currently the major Federal body charged with the protection of Nigeria environment, NESRA was created by the NESRA Act 32. The federal government in likes with section 20 of the 1999 constitution, established the agency as an institution under the supervision of the federal Ministry of Environment, Housing and urban development NESREA

According to Ladan (2011) the National Environmental Standards and regulation Enforcement Agency is currently the major Federal body charged with the protection of Nigeria environment, NESRA was created by the NESRA Act 32. The federal government in likes with section 20 of the 1999 constitution, established the agency as an institution under the supervision of the federal Ministry of Environment, Housing and urban development. NESREA Act was created to replace the defunct federal environment protection agency (FEPA). In examining the enforcement of preventive principle in Nigeria, it is necessary to take a look at the establishment, mandate and powers of NESREA established by the NESREA Act, 2007.

NESREA was established on 30 July 2007 as a body corporate with perpetual succession and common seal, which may sue and he sued in its corporate name. It is responsible for the enforcement of environmental standards, regulations, rules, laws, policies and guidelines, its authority extends to the enforcement of environmental guidelines and policies, such as the national policy on environment, 1999. This is indicative of the importance and relevance of standards, rules policies and guidelines on the environment. Although they may not have the force of the law, they are vital and necessary element in the protection and prevention of the environment (Ladan, 2011).

Abang, (2018) carried out a research on NESREA Act and environmental sustainability in Rivers state Nigeria. The purpose of the study was to ascertain the efficacy of NESREA Act to environmental sustainability in Rivers State, the survey research design was adopted for the study with a sample of 220 respondents. The questionnaire was used as Instrument for data collection, simple regression analysis was the test statistic used to analyze the data. The result showed that NESREA Act has a significant positive influence on environmental sustainability.



Valery, (2019) conducted a study on NESREA Act and Biodiversity conservation in Ogoniland, Rivers State, Nigeria. The purpose was to find out the extent to which NESREA Act has contributed to biodiversity conservation, the ex-post-facto research design was used with a sample of 450 respondents, with the help of a well structured questionnaire, data was collected from the 450 respondent and analyze using simple and multiple regression. The results showed that NESREA Act has contributed immensely to biodiversity conservation in the study area.

Effanga, (2017) conducted a study on community participation and attitude of farmers towards deforestation in southern Cross River State, Nigeria. The researcher adopted ex-post facto research design. The study population was one thousand, six hundred and (1602) respondents drawn from the study area. The sample size of the study was eight hundred and one (801) local farmers. Simple and stratified random sampling techniques were adopted for the study tagged community participation and farmers' attitudes towards deforestation questionnaire (CPFADQ). One-way analysis of variance (ANOVA) was the statistical tool used for analyzing of data collected. Based on the findings, it was concluded that community participation towards deforestation is a key strategy in the management. These strategies will stimulate community participation in resource management and boost forest management and employment opportunity.

Ogar (2013) in support of the above author believe that local communities are supposed to be involved in resource management through the process of gradually handling the harvesting and management activities.

Nigeria, and indeed Cross River State through the Federal Environmental Protection Agency (FEPA) Act had achieved the following major milestones in environmental protection and conservation of biological diversity, development of the

National Policy on the environment, establishment of National Council on Environment (NCE); establishment of a National Advisory committee (NAC) on Agenda 21: review of National Environmental Policy guidelines and standards; enactment of environmental impact assessment (EIA) law, establishment of a National Energy policy; and enactment of Nuclear Safety and Radiation Protection Legislation, implementation of the National Agenda 21: and initial development of vision 2010 strategy.

As a result of FEPA Act, the National Council on environment was established in 1990. It provides a forum for consultation and harmonization of environmental management matters throughout the Federation. FEPA Act gave birth to the National Policy on the Environment. Section 3, sub section 3,4 of the policy emphasized on biodiversity conservation (National Policy on Environment 1889). It is true that there have in recent years been increasing deforestation, soil degradation and deterioration and desertification in Nigeria. All these have been due to the spread of agriculture, commercial timber felling and local cutting of wood for fuel at will. This is further aggravated by accidental forest fires as well as farming and game-related bush burning. The need is therefore, to secure development while at the same time sustaining the productivity of the natural vegetation, protection of wildlife, maintaining genetic diversity and avoiding forest and soil destruction.

According to the policy, the strategies for achieving these objectives include:

- a. Promoting the rational exploitation of forest resources to meet domestic consumption needs and to achieve a significant export activity on a larger term basis.
- b. Regulating forestry activities to enhance conservation and environmentally sound management practices;

- c. Monitoring the quantitative and qualitative changes of forest cover and their effect using conventional and modern technology such as multispectral satellite imagery;
- d. Providing data on the balance between the nation's forest biomass and the prevailing environment and changes in the forest biomass considered to have a significant impact on the Biodiversity.
- e. Strengthening forest protection programmes to ensure adequate vegetation cover in critical areas and to discourage developments likely to cause harmful changes;
- f. Assessing the state of natural vegetation resources and identifying endangered sites and species for priority action;
- g. Protecting flora and fauna in danger of extinction as well as forest reserves for scientific, recreational and other cultural purpose;
- h. Encouraging reforestation and afforestation programmes and activities with a view to rectifying forest losses and the adverse effects of deforestation;
- i. Combining desirable features of traditional approach with modern scientific method of conservation;
- j. Increasing support for Non-Governmental Organizations (NGOs) and Community tree planting programmes;
- k. Promoting the development of alternative sources of energy while supporting programmes for the development of more efficient methods of wood energy use,
- l. Protecting forest from bush and forest fires and taking measures to discourage wanton destruction of forest resources.
- m. Strengthening programmes for the identification and study of the natural heritage in fauna and flora for establishing national inventory of forest resources;
- n. Establishing germplasm conservation programmes.

- o. Establishing programmes for the efficient utilization of vegetation resources including reduction of wastes and improved technologies for product consumption;
- p. Encouraging appropriate agro-forestry practices and the search for multipurpose plant species for achieving increased productivity for a unit area of land.
- q. Developing, and disseminating scientific and technological information conducive for more efficient use of forest resources and wildlife;
- r. Supporting the goals of the National Conservation strategy for Nigeria.

Onosedede (2006) noted that an unexpected discovery of the dumping and storage of tons of hazardous waste at a village port of Koko in the former Bendel State in 1988 embarrassingly called for a unifying environmental Framework Law that would be charged with the overall responsibility of protecting the Nigerian environment. The said Decree No. 88 of 1988 established the Federal Environmental Protection Agency and was later amended by Decree No. 59 of 1992 and enlarged in scope to include natural resources conservation as well as to provide the institutional arrangements for the overall coordination and management of the environment in Nigeria. It also established a governing council that drew membership from different ministries and departments and charged with the overall policy direction of the Agency FEPA.

FEPA engineered certain specific policy legislative instruments which include national policy on environment of 1989, revised in 1999, the Environmental Impact Assessment (EIA) Decree No. 86 of 1992, and National Environmental protection (Effluent Limitation) Regulations of 1991, Pollution Abatement in industries and facilities generating wastes regulations of 1991, and solid and Hazardous Waste Management Regulations of 1991. Recently, other guidelines and standards have been

designed and these include environment friendly products (Eco-Labeling), water quality, oil spillage, fingerprinting, and waste disposal. FEPA encouraged States to set up their own environmental protection agencies that would address their unique environmental problems including biodiversity depletion. Some local governments even joined and instituted their own environmental protection committees too.

However, there was a vacuum in the enforcement of environmental laws, standards and regulations in the country. To address the situation, the national environmental Standard and Regulations Enforcement Agency (NESREA) was established as a parastatal of Federal Ministry of Environment, Housing and Urban Development. The NESREA act was accented to by Mr. President on 30<sup>th</sup> July, 2007. By the NESREA act, the FEPA act Cap F 10 LFN 2004 has been repealed.

The NESREA 2007 Act N0.25 established the National Environmental Standard Enforcement Agency (NESREA) with responsibility for the protection and development of the environment in Federal and environmental technology and is empowered to establish environmental criteria, guidelines, specifications, standards, procedures and processes for environmental protection as well as to enforce the Act and Environmental Law in general.

According to NESREA 2007 Act No. 25 NESREA has the responsibility for the protection and development of the environment, biodiversity conservation and sustainable development of Nigeria's Natural Resources in general and Environmental technology including coordination, and liaise with, relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations rules, laws, policies and guidelines.

The vision of the agency to ensure a cleaner and healthier environment for Nigerian, while her mission to inspire personal and collective responsibility in building an environmentally conscious society for the achievement of sustainable development in Nigeria.

By section one of the NESREA Act, the National Environmental Standards and Regulations Enforcement Agency was established as a body corporate with perpetual succession and a common seal, with power to sue and be sued in its corporate name. It is further provided that the Agency, shall, subject to the provisions of the Act, have responsibility for the protection and development of the Environment, biodiversity conservation and sustainable development of Nigerians Natural Resources in general and environmental technology, including coordination and liaison with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulation, rules, laws, policies and guidelines.

The Act also established a governing council for the agency.

By section 7 of the Act, the agency shall have the following functions and powers:

- a) Enforce compliance with laws, guidelines, policies and standards on environmental matters;
- b) Coordinate and liaise with stakeholders, within and outside Nigeria, on matters on environmental standards, regulations and enforcement:
- c) Enforce compliance with the provision of international agreements, protocols, conventions and treatise on environment including climate change, biodiversity conservation, desertification, forestry, oil and gas, chemical, hazardous waste, ozone depletion, marine and wild life, pollution, sanitation

and such other environmental agreement as may from time to time come into force;

- d) Enforce compliance with policies, standards, legislations and guidelines on water quality, environmental health and sanitation, including pollution abatement;
- e) Enforce compliance with guidelines and legislations on sustainable management of the eco-system, biodiversity conservation and the development of Nigeria's natural resources;
- f) Enforce compliance with any legislation and sound chemical management, safe of use of pesticide and disposal of spent packages thereof;
- g) Enforce compliance with regulations on the importation, exportation, production, distribution, storage, sale, use, handing and disposal of hazardous chemical and waste other than in the oil and gas sector;
- h) Enforce through compliance, monitoring the environmental regulations and standards on noise, air, land, seas, oceans and other water bodies other than in oil and gas sector;
- i) Ensure that environmental projects funded by donor organizations and external support agencies adhered to regulations in environmental safety and protection;
- j) Enforce environmental control measures through registration, licensing and permitting system other than in the oil and gas sector;
- k) Conduct environmental audit and establish data bank and regulatory and enforcement mechanisms of environmental standards other in the oil gas sector;
- l) Create public awareness and provide environmental education on sustainable environmental management, promote private sector compliance with

environmental regulations other than oil and gas sector and publish general scientific or other data resulting from the performance of its functions;

- m) Carry out such activities as such activities as are necessary or expedient for the performance of its functions.

However, the major concern of this study is on section 7 (c) and (e) which lay emphasis on enforcing compliance with the provision of international agreements, protocols, conventions, and treatise on the environment including climate change, biodiversity conservation, desertification, forestry, oil and gas, chemicals, hazardous waste and ozone depletion, marine and wild life, pollution, sanitation, and such other environmental agreement as may from time to time come into force; and enforcing compliance with guidelines and legislations on sustainable management of the ecosystem, biodiversity conservation and the development of Nigeria's natural resources.

## **2.7 Sea fisheries act S4, LFN 2004 Awareness and biodiversity conservation**

Sea fisheries act is an act that provides for the control, regulation and protection of sea fisheries in the territorial waters of Nigeria (sea fisheries Act, 1992, No. 71). Bisong (2018) carried out a study on implication of sea fisheries act on Biodiversity conservation in Orji river, Enugu state. The study was meant to ascertain the effectiveness of the act on biodiversity conservation. The survey research design was adopted with a sample of 120 respondents. The questionnaire was the major instrument that was used for data collection. The data was analyzed using Analysis of Variance (ANOVA). The result showed that all the sections of the Act has contributed greatly to biodiversity conservation in the study area.

In agreement with Bisong (2018), Awulu (2019) conducted a study on sea fisheries act and biodiversity conservation in Kabala local government area, Kaduna



state, Nigeria. With the help of a well-structured questionnaires title: sea fisheries act and biodiversity conservation questionnaire (SFABCQ). The data was analyzed using simple and multiple regression analysis and the result revealed that there is a significant positive influence on the seas fisheries act on biodiversity conservation.

In another study carried out by Robert (2020) on the role of sea fisheries act 54, LFN 2004 on biodiversity conservation in Benue state, the researcher adopted the survey research design using a sample of 400 respondents. With the help of well-structured questionnaire data was collected and analyzed through a test statistic called Pearson product moment Correlation statics. The result revealed that there is a significant positive realty between the sub-variables of the study and biodiversity conservation in terms of the rope of the act. Keane conducted a research on sea good regulation and environmental sustainability in Kumasi, Ghana, the purpose of the study was to find out the extent to which sea food regulation influence environmental sustainability and to make possible recommendations. The survey research design was adopted for the study. Questionnaire instrument was used to collect data from 250 respondents of the study area. Simple and multiple regression analysis were used to analyze the data and the result showed that there was a significant influence of sea food regulation on environmental sustainability.

The sea fishery act was established in 1949, with the aim of making comprehensive and advance use of water, enhancing fisheries productivity. According to Finegold and World Ocean Review (2017), fisheries make critical contributions to development in the areas of employment with about 41 or 42 million people worldwide, the vast majority who live in developing countries, working in fish production, food security and nutrition with fish constituting an important source of nutrients for the poor and often being the cheapest form of animal protein and trade with a third of fishery

commodity production in developing countries desired for export. It is surprising that people are careless with these natural resources.

In Asia, about 1 billion people rely on fish as their primary source of protein. Expectedly, the total catch of fish has climbed fairly steadily since the 1950s, ([www.globalchangemich.ed/...fisheries,2017](http://www.globalchangemich.ed/...fisheries,2017)). Presently, between 100 and 159 million metric tonnes of fish per year are taken from the sea. Consequently, the marine resources have been over-exploited fisheries they have continued also to over-fish from one species to another (Finegold, 2017 and [www.worldoceanreview.com](http://www.worldoceanreview.com), 2017). Unbridled competition which has resulted in over capacity and which in turn has caused declining resources. In order to make up for such declining resources, the super powers with high fishing technology have adopted fishing methods such as the use of drift net which are 50 feet long and can fish a distance of 65km and kill all that they encounter(Ibnd.d).

The resultant effect of such sophisticated fish method is that with the overcapitalization, the fishing nations have created a situation of over-harvesting of unfinished stocks hitherto thought of as baits (Akpan, 2017). According to Akpan (2017), more and more people than ever before rely on fisheries in the developing countries for food and as a source of income but harmful practices and a poor management have threatened the sector's sustainability.

The Nigerian fisheries act has primarily face three basic objectives which are for the control, regulation and protection of sea fisheries in the territorial waters in Nigeria. There is urgent need to conserve marine biodiversity especially the fish nation. In order to actualize these objectives, the act makes provision for a licensing officer to grant license to any person, on application; based on the prescribed form. Who owns a motor fishing boat among others for fish taking in the territorial water in Nigeria and for other

related fishing activities (Ibid, S. a-c). Under this act, the minister is empowered to make regulation in furtherance of the objectives in the act (Sea Fisheries act No. 71 LFN, 1992). It is also a criminal act for any person to engage in fish taking by adopting

related fishing activities (Ibid, S. a-c). Under this act, the minister is empowered to make regulation in furtherance of the objectives in the act (Sea Fisheries act No. 71 LFN, 1992). It is also a criminal act for any person to engage in fish taking by adopting unauthorized and dangerous means which could result in the extinction and depletion of fish stock in the Nigerian waters, as described under the Act as well as endanger the lives of the ultimate consumers.

Pursuant to this act, it is a criminal offence for any person to engage in fish taking in unauthorized and dangerous manner (sea fisheries act No. 17, LFN, 1992). According to the Act, criminal and financial penalties for such act are two years fail term on conviction or a fine of ₦50,000. This provision does not make such penalties conjunctive but disjunctive. However, the financial penalty is rather too small where the offence is committed by an owner of a motor fishing boat on the contrary, the financial penalty will be rather too small high for a peasant or customary law fisherman, without the requisite knowledge of the existent of this Act and the extant offence. On the other hand, the criminal penalty of two years fail term upon conviction is rather too high against the current effort at prison decongestion by the federal government of Nigeria.

Sea fisheries (fishing), regulations according to Akpan (2017), they are made specifically for two basic reasons pursuant to section 14 of the principal Act. First, regulation one of these regulations prohibits the use of motor fishing boat within certain limit of the continental shelf of the Nigerian coasters and the local fishing activities are capable of being undertaken with canoes and with less risk in such areas.

Second, regulation two to seven of these regulations cover the apparatus, operations, trade and conditions under which trawler operations should observe and comply. This is in order to protect the fish stock and fish lives, economic interest of

Nigeria and waters of Nigeria generally. Third, regulations eight and nine of these regulations seeks to ensure the protection of sea vessels or motor fishing boats operating in Nigeria, except as may be permitted under the extent regulations and law. And such Nigeria motor fishing boats and other non Nigerians motor fishing boats by registration, name, number and national flag on such motor fishing boats or trawlers (Regulations 8 and 9, *ibid*). According to Akpan, (2017), there are probably two or more statutory reason behind these requirements. These include the protection of Nigeria's territorial integrity checking the activities of sea pirates, protecting of the interest of local fishing companies and promoting internally generated revenue (IGR) of the federal government of Nigeria. The Cross River State government has made concerted efforts to ensure that the sea fisheries act is adhered to strictly by prohibiting the use of dangerous chemicals in fishing.

Fourthly, according to Akpan (2017) regulations eleven, twelve and fourteen generally cover the fish size in respect of certain species of fish they catch or possess or trade in as well as the authority saddled with the power to determine the minimum size of such species of fish based on fix criteria. However, the prescription on the minimum size of fish to be caught for the federal government shall not apply to the federal government (*ibid* 14(3) the utility of these regulations relates to the environmental issues of fish conservation and development base on the national policy in Nigeria on sustainable fish and fisheries exploration and exploitation.

Regulation nineteen and twenty relate to the lobsters and crabs caught in the course of fishing by trawler operators, prohibition of same and repatriation of some back to the water. Regulation 14 and 120 *ibid*, the criminal penalty or conviction is fine of ₦50,000 only for breach of these regulations.

Under regulation one of the sea Fisheries Act, any trawler operator is to have his trawler certified for fitness by the appropriate authority. Such certificate is to be displayed on the vessel concerned for the ascertaining of its fitness for the purpose of fishing and transporting of such a catch.

Malaysia has both the federal list and concurrent list in its federal constitution (Akpan, 2007). Akpan further observed that, in the federal constitution of Malaysia, fishing and fisheries items in the maritime waters of Malaysia, the estuarine and riverine waters in the maritime waters contained in both lists. But nonetheless, the federal parliament is constitutionally empowered to legislate on fishing and fisheries items in the concurrent list as they relate to more than one state's interest in the estuarine and riverine waters in such a situation, the states are expected to domesticate such legislations (Akpan, 2017).

According to Akpan (2017), looking at the long title of the Malaysia's Act shows an all encompassing environmental "conservation, management and development mission statement". The Act overtly seeks to protect not only the interest of the fisheries industry in Malaysia but it also seeks to provide the local fishing vessels, specifically against foreign fishing vessels.

The United Nations convention on the law of the sea states that the coastal state has sovereign rights for the purpose of exploring, exploiting, conserving and managing living resources in its exclusive economic zone (Article 56, UN Law of the sea), and obligate the coastal state to determine the allowable catch of living resources (Article 61, UN Law of the sea, n.d). It also prescribes the conservation of highly migratory species (Article 64 UN Law of the sea, n.d), the conservation of anadromous stocks (Article 66) etc.

According to the Japanese Fisheries Basic Act (Act No. 89 of June, 29, 2011). The fisheries basic act was established in 2001 as a basic act in the field of fishery in response to the shift to the fishery resource storage and management systems based on the United Nations convention on the law of the sea and worsening state of resources in the surrounding sea areas. The purpose of the Act is to achieve the comprehensive and systematic implementation of policies for fisheries (Article 1). To this end, it defines basic fisheries plan, and the storage and management of fisheries resources in the exclusive economic zone.

## 2.8 Summary of literature review

The study reviewed empirical and theoretical literature on the sub-independent variables of environmental legislations and biodiversity conservation. The sub-independent variable include: environmental impact assessment act awareness, Cross River State forestry commission law awareness, endangered species act awareness, convention on biological diversity awareness, Federal National Park Act Awareness, National Environmental Standard and regulation enforcement Agency act awareness and sea fisheries act awareness and biodiversity conservation were revealed. Most theoretical and empirical literature reviewed in the work has shown a consensus in the view of scholars that the sub-variables of the study are positively related to biodiversity conservation, however, few scholars disagree with the notion. The researcher reviewed various scholars views on environmental impact assessment act awareness and biodiversity conservation with the view of changing people's attitude towards biodiversity conservation. From the review, environmental impact assessment act awareness is significantly related to biodiversity conservation. However, cross riverians

needs adequate design of environmental literacy to reduce the risk and hazards of various development projects cited or carried out in the state without carrying out proper EIA.

Findings on review of Cross River State forestry commission law awareness and biodiversity conservation, also revealed, a significant relationship exist between the dependent and the independent variable. Also, literature reviewed on endangered species act and biodiversity conservation shows that there is a significant relationship between the two variables. However, most literature reviewed on convention on biological diversity shows that there is a significant relationship between the variables but the result of the analysis revealed that convention on biological diversity is not significantly related to biodiversity conservation. The literature reviewed on federal nation park act also revealed that there is a significant relationship between the independent and the dependent variable. The literature reviewed on National Environmental standard of regulation enforcement agency act awareness stress that it is paramount to build resident capacity in either to achieve maximum environmental protection and management. The review portray is significant relationship between NESREA Act awareness and biodiversity conservation. The review indicates that NESREA act has contributed immensely to environmental awareness thereby enhancing biodiversity conservation. Finally, literature reviewed on sea fisheries act show that there is also a significant relationship between the independent variable and the dependent variable.

However, the reason for this research is to fill up the gap other researchers do not identify using environmental legislations, (environmental impact assessment act awareness, Cross River State Forestry Commission Law Awareness, endangered species act awareness, convention on biological diversity awareness, federal national park act awareness and NESREA act awareness, sea fisheries act awareness) and biodiversity

conservation. Similar researches carried out were not done in Cross River State. Also, it was observed by the researcher that the review of other researchers were from developing countries and covers a small area and sample size whereas the present study covers a large scope of the entire cross river state (18 local government areas) with a larger sample size of 600 respondents. The study should contribute to knowledge of other researchers through existing local literature and publications. Hence environmental legislations have a social responsibility to enhance the blending of local, national and international biodiversity conservation.



## CHAPTER THREE

### RESEARCH METHODOLOGY

This chapter presents the method and procedures adopted in carrying out this research. The chapter is presented under the following sub-headings:

- 3.1 Research design
- 3.2 Area of the study
- 3.3 Population of the study
- 3.4 Sampling procedure
- 3.5 Sample
- 3.6 Instrumentation
  - 3.6.1 Validity of the instrument
  - 3.6.2 Reliability of the instrument
- 3.7 Procedure for data collection
- 3.8 Procedure for data preparation/ scoring
- 3.9 Procedure for data analysis
- 3.10 Operational definition of research variables

#### 3.1 **Research design**

The research design adopted for the study is the correlational research design. According to Joshua (2005) correlation research design seeks to establish what relationship exists between two or more variables. It is a research design that investigates the relationship between two more variables without the researcher controlling or manipulating any of them or without influence from extraneous variables. It is a systematic empirical enquiry in which researcher does not have direct control of independent variable because their manifestations have already occurred or they are

inherently not manipulable. In other words, since the researcher does not have direct control of the independent variable he/she cannot manipulate them. The main reason for adopting this design is because the researcher seeks to establish the relationship between the dependent and independent variables. Also, because the relationship between environmental legislation (environmental impact assessment act, Cross River State forestry commission law, endangered species act, convention on biological diversity, federal national park act, national environmental standard and regulation enforcement agency act and sea fisheries act) and biodiversity conservation has already occurred and the researcher can manipulate them. This requires empirical data on these variables which have already occurred in the population.

### 3.2 Area of the study

The research area for this study is Cross River State, Nigeria. Cross River State lies between latitude  $4^{\circ}28'$  and  $6^{\circ}55'$  North and longitude  $7^{\circ}50'$  and  $9^{\circ}28'$  East of the Greenwich meridian within the tropical rainforest belt of Nigeria, it shares boundaries with the republic of Cameroon in the East, Benue State in the North, Ebonyi and Abia State in the West, Akwa Ibom State in the South West and the Atlantic ocean in the South. Cross River State lies within the Cross River Basin which has a total area of  $33,855 \text{ km}^2$  of which  $44,105 \text{ km}^2$  lie in Nigeria and  $9750 \text{ km}^2$  in Cameroon. The cross river basin also covers part of Benue, Abia, Ebonyi, Enugu and Akwa Ibom States in Nigeria. The topography of Cross River State is mostly characterized by low-lying undulating terrain with several areas of extensive flood plain along the course of Cross River and its major tributaries.

However, there are high elevations at the basement areas of the Oban and the Obudu Plateau with the Obudu hills attaining heights of up to 1,600m. The state has a land area of 23,074 square kilometers, with an estimated population of 3,866,300 million (Cross River State Bureau of Statistics, 2021) and a comparatively low population density of 20 persons per square kilometers. The state capital Calabar Municipality has a population of approximately 4,832,88. There are 18 local government councils in the state operating as sub-political structures in the state each headed by an appointed or elected head of the local government area, the local government councils are: Abi, Akpabuyo, Bakassi, Bekwara, Biase, Boki, Calabar Municipality, Calabar South, Etung, Ikom, Obanliku, Obubra, Obudu, Odukpani, Ogoja, Yakurr, and Yala. The major language spoken in the study area include: Efik, Ejagham and Bekwara; while the minor ethnic groups and languages spoken are Ekori, Bahunwuu, Yakurr/Agoi, Boki, Bako and Mbembe.

The state is Agrarian state with about 75% of its people engaged in subsistence farming. Poverty is endemic with over 70% of the population living on an income of less than US \$1 a day. The civil service is a major employer with over 20,000 employees. The public sector has been the prime mover of all economic activities in the state despite some attempts to promote private sector investment. The private sector is still relatively under developed and is dominated by informal sector activity. The state has a rich stock of arable land and various mineral resources that offer investment opportunities in agriculture, forestry and eco-tourism. Over the past 10 years, the sector has recieved significant investment including the Obudu ranch and resort, the Tinapa business resort and others. Agriculture and tourism development are identified as the flagships sector to drive future economic development.

Average annual rainfall ranges from 1,760mm in Northern part of the state to 3, 100mm in the southern part. The duration of the dry season varies from 3 months in the south to 5 month in the North. Only 6% of rainfall occurs in the driest three months of the year. This has significant consequences for water resources management particularly in the Northern part of the state where some rivers are non-perennial due to the impermeable geology of most areas of the state, runoff from sub-catchments is 40%-60% of annual rainfall. Seasonal floods have created wide, deep river channels.

The name Cross River State was synonymous with cleanliness. It is obvious that, the state being the first capital of Nigeria has often taken a lead in promoting cleanliness. For instance, Cross River State government set the pace for employing the services of women to keep Calabar (State capital) clean and green before other state government like Lagos and Akwalbom followed suit. This single effort by the government is responsible for the slogan "the Efiks are white people". The provision of waste bins by the government, all over the state is to promote sustainable waste disposal and management respectively.

The people of Cross River State are predominantly farmers, fishermen, women, carvers, etc. crops like yam, maize, cocoyam, cassava, vegetable, plantain, pineapple and also cash crops like cocoa, rubber, groundnut, etc. the gigantic rubber plantation in Odukpani and the Gmalina plantation in Akamkpa; Palm estate in Akamkpa, Boki, Biase local government area, Cocoa in Ikom, yam, groundnut and fruits in Bekwara, Ogoja and Obudu respectively testify of the rich Agricultural endowment of the state (study area). There are many other resources available in the area that provides the state with huge revenue. These resources include; forestry, water, clay, limestone, salt, sand and gravel, Kaolin, barite, manganese, granite, basalt, Quartz and tin ore. The study area is blessed

with private and public institutions for training of human resources in the area. Apart from the private and public Nursery, Primary and secondary schools, other higher institutions include, University of Calabar, Cross River State University of Technology, Calabar, College of Education, Akamkpa; Federal College of Education, Obudu; College of Health Technology, Calabar' and a study centre for National Open University that have developed several manpower in various professions of human endeavour. These institutions are presently resourceful in promoting biodiversity conservation and general environmental sustainability for the general wellbeing of the people.

### 3.3 **Population of the study**

The population of the study will consists of all registered farmers in the study area of the state including male and female who ranges between the ages of 18-65 years old, who are considered to be active population residing in the state. The figure for registered farmers in the state is 4496 as available record show in Cross River State Bureau of Statistics (2019). The two local government areas in the Northern Senatorial District had 1,582 registered farmers, the local government areas in the Central Senatorial District had 1,651 registered farmers and the two local government areas in the Southern Senatorial district had 1,329 registered farmers. The researcher decided to use registered farmers from the target population because it will be a herculean task to ascertain the number of all farmers of the target population in the state.

### 3.4 Sampling technique

The sampling procedure adopted for this study is a purposive and simple random sampling technique.

Using purposive sampling technique, six local government areas were purposively selected out of the three senatorial zones due to high concentration of forest. From each of the selected local governments all the communities were written on pieces of paper from which two communities were randomized using simple random sample technique of "hat and draw". This produced a total of twelve communities, two each from the six Local Government Areas and four each from the three Senatorial zones. So these twelve communities were used as sample communities for the study. A breakdown of the sample respondent is shown in table 1.

### 3.5 Sample

The sample for this study was 600 registered farmers out of a total of 4499 registered farmers using 13.3% to select the total sample from each community.

### 3.6 Instrumentation

As a veritable tool for the generation of data for the study, the researcher with the assistance of the supervisor developed a 45-item research instrument referred to as Environment Legislation and Biodiversity Conservation Questionnaire (ELBCQ).

The questionnaire had two parts. Part one contained items that were meant to elicit information on the demographic data of the respondents such as sex, age, occupation, educational background. Part two focused on items exclusively on the relationship of environmental legislations and biodiversity conservation. This part comprised eight (8) sections with each section containing five (5) items, each measuring the variables of the

study. Each hypothesis was measured with five (5) items. In all, there are forty-five (45) items.

The items in the questionnaire were presented on a modified four (4)-point Likert Scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). Each statement sought to determine the relationship between environmental legislations and biodiversity conservation. The respondents were required to respond by ticking the options that best appealed to them.

### **3.6.1 Validity of the instrument**

To ensure that the items selected for inclusion in the questionnaire were capable of eliciting relevant responses from respondents, drafts copies of the instrument were presented to the supervisor and two senior lecturers from the Department of Educational Foundation, Faculty of Education for face validity. Through their constructive criticism and recommendations, some items were dropped, some were modified and some were retained. There were initially 50 items, but after the validation process, 45 items were retained and certified okay to measure the variables of the study.

### **3.6.2 Reliability of the instrument**

To establish the reliability of the instrument (questionnaire), a trial test was done using 50 respondents from the study area that were not part of the study. Cronbach alpha reliability procedure was used to determine the internal consistency of the instrument which was found to range from .701 to .821 which imply that the instrument is both valid and reliable to be used for this investigation. The reliability coefficient table is presented in table 2.

### 3.7 Procedure for data collection

Due to the size of the sample, the researcher employed the services of 6 Research Assistants (Youth leaders). This research assistants were instructed to administer the questionnaire to the registered farmers in their communities until the expected number from each community was reached. After distributing the questionnaire to the research assistants, the researcher went back the next week and collected the instrument which was coded and scored appropriately to answer the research questions and test the hypothesis.

### 3.8 Procedure for data preparation/scoring

In order to ensure that the data collected was properly analyzed, a key was developed by which every bit of information received from the respondents was coded. Each of the questionnaires was scored independently. The questionnaire was coded and scored appropriately. All items in the questionnaire were awarded numerical values. For each of the positively constructed item, responses would be awarded thus: strongly agree (SA) was assigned 4, Agree (A), 3, Disagree (D) 2 and strongly disagree (SD) 1. The reverse was for the negatively constructed items.

The sum of scores each respondent gave from section one (1) to eight (8) determined his or her response with regards to that variable. The coding schedule for the preparation of the study for analysis is shown in Table 2.

### 3.9 Procedure for data analysis

This was done hypothesis by hypothesis. The relevant hypothesis for the study as well as statistical techniques that was used for analyzing the data are presented below.

Hypothesis one:

There is no significant relationship between Environmental Impact Assessment Act Awareness and biodiversity conservation in Cross River State.



Dependent Variable: Biodiversity Conservation.  
Independent variable: Environmental impact assessment act Awareness  
Statistical Techniques: Simple regression analysis

Hypothesis two:

There is no significant relationship between Cross River State Forestry Commission Law Awareness and biodiversity conservation in Cross River State.

Independent Variable: Cross River State Forestry Law Awareness.  
Dependent Variable: Biodiversity Conservation.  
Statistical Techniques: Simple regression analysis

Hypothesis three:

There is no significant relationship between Endangered Species Act Awareness and biodiversity conservation in Cross River State.

Independent Variable: Endangered Species Act Awareness.  
Dependent Variable: Biodiversity Conservation.  
Statistical Technique: Simple regression analysis

Hypothesis five:

There is no significant relationship between conventional biological diversity Awareness and biodiversity conservation.

Independent Variable: Convention on Biological Diversity Awareness.  
Dependent Variable: Biodiversity Conservation.  
Statistical Technique: Simple regression analysis

Hypothesis four:

There is no significant relationship between National Park Act Awareness and biodiversity conservation in Cross River State.

Independent Variable: National Park Act Awareness.

Dependent Variable: Biodiversity conservation.

Statistical Technique: Simple regression analysis

Hypothesis five:

There is no significant relationship between National Environmental Standards, Regulation Enforcement Agency Act Awareness and biodiversity conservation in Cross River State.

Independent Variable: National Environmental Standards and enforcement regulation agency Act Awareness

Dependent Variable: Biodiversity conservation.

Statistical Technique: Simple regression analysis

Hypothesis six:

There is no significant relationship between sea fisheries act Awareness and biodiversity conservation in Cross River State

Independent Variable: Sea Fisheries Act Awareness

Dependent Variable: Biodiversity conservation.

Statistical Technique: Simple regression analysis

Hypothesis seven:

There is no significant relationship between Environmental Impact Assessment act Awareness, Cross River State Forestry Law Awareness, endangered species Act Awareness, convention on biological diversity Awareness, Federal national park act

Awareness, National Environmental Standard Regulation and Enforcement Agency Act  
Awareness, Sea fisheries Act Awareness and biodiversity conservation in Cross River  
State

Independent Variable: Environmental Impact Assessment act Awareness, Cross  
River State Forestry commission Law Awareness  
Endangered Species Act, Awareness conventional biological  
biodiversity Awareness, Federal national park Act  
Awareness, National Environmental Standard Regulation  
Enforcement Agency Act Awareness, Sea fisheries Act  
Awareness and Biodiversity Conservation in Cross River  
State

Dependent Variable: Biodiversity conservation.

Statistical Technique: Multiple regression analysis.

TABLE 1

Cronbach alpha reliability estimates for the variables of the research instrument (N=50)

Variables	N	$\bar{X}$	SD	$\alpha$
Environmental impact Assessment Act	5	14.23	3.60	.74
Cross River State Forestry Laws	5	13.46	3.32	.77
Endangered specie Act	5	14.64	3.77	.82
Convention on biological diversity	5	12.46	2.46	.70
National Park Act	5	13.23	3.60	.73
NESREA Act	5	13.35	2.74	.72
Sea fishery Act	5	13.73	2.46	.75
Biodiversity conservation	10	22.31	5.28	.78

### 3.10 Operational definition of research variables

For the purpose of clarity, the research variables are defined as used in this study. The variables are:

**Environmental Impact Assessment Act:** This refers to an Act to set out the general principles, procedures and methods to enable the prior considerations of Environmental Impact Assessment on certain public or private project. This variable will be measured with item 1-5 of section B of the ELBCQ.

**Cross River State Forestry Commission Law:** This refers to a law that makes provisions for the establishment of the state forestry commission, for the purpose of providing sustainable management of the forest and wildlife resources, preservation and protection of the ecosystem in Cross River State. This variable will be measured with item 6-10 of section B of the ELBCQ.

**Endangered Species Act:** This refers to a key legislation, for both domestic and international conservation, with the aim of providing a framework to conserve and protect endangered and threatened species and their habitats. This variable was measured with item 11-15 of section B of the ELBCQ.

**Convention on Biological Diversity:** This refers to a multilateral treaty which has three main goals of conservation of biodiversity, the sustainable use of its components, and the fair equitable sharing of benefit arising from genetic resources. This variable will be measured with item 16-20 of section B of the ELBCQ.

**National Park Act:** This refers to an Act that makes provision for National Park management in accordance with the management principles prescribed by or under this Act for the class of protected area and the interim management policy for the National

Park until a management plan is approved for the National Park in accordance with the Act. This variable will be measured with item 21-25 of section B of the ELBCQ.

National Environmental Standards Regulation and Enforcement Agency (NESREA) Act: This refers to an act that provide for the establishment of the National Environmental standards and regulations Enforcement Agency charged with the responsibility for the protection and development of environment in Nigeria and for the related matters. This variable will be measured with item 26-30 of section B of the ELBCQ.

Sea Fishery Act: This refers to an Act to provide for the control, regulation and protection of sea fisheries in the territorial waters of Nigeria. This variable will be measured with item 31-35 of section B of the ELBCQ.

Biodiversity conservation: This refers to the practice of protecting the wealth and variety of species, habitats, ecosystems and genetic diversity of plants. This variable will be measured with item 36-45 of Section B. of the ELBCQ.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

This chapter presents the result and discussion of the study. It is arranged as follows

- 4.1 General description of variables
- 4.2 Presentation of result
- 4.3 Discussion of findings

#### 4.1 **General description of research variables**

The general purpose of the study is to determine the relationship between environmental legislation and biodiversity conservation in Cross River State, The independent variable is environmental legislation with sub variables as Environmental Impact Assessment (EIA) Act, Cross River State Forestry Law, endangered species Act, conference convention on biological diversity, Federal National Park Act, National Environmental Standard Regulation Enforcement Agency (NESREA) Act, Environmental Impact Assessment (EIA) Act while the dependent variable is biodiversity conservation. A sample of six hundred (600) respondents was used for the study. The data collected was treated with utmost carefulness. The different statistical measures used are simple regression analysis for hypotheses one (i) to seven (7), while multiple regression was used for hypothesis eight (8). Data on each of the sub-variable was collected continuously using the research instrument. The results are presented in consonant with the hypothesis. The result of descriptive statistics of the variables of the study is stated in Table 5.

#### 4.2 **Presentation of results**

Eight hypotheses were stated and tested in order to provide solution to the problem of this study. Each hypothesis was tested at .05 level of significance.

#### 4.2.1 Hypothesis one

Environmental Impact Assessment (EIA) Act Awareness does not significantly relate to biodiversity conservation. The independent variable is Environmental Impact Assessment (EIA) Act Awareness while the dependent variable is Biodiversity Conservations. To test this hypothesis, simple regression statistical analysis was used and the result as presented in Table 8.

The analysis in Table 6 showed that the Adj  $R^2$  is 0.033 This implies that 3.3% of the variance in the dependent variable (Biodiversity Conservation) could be accounted for by Environmental Impact Assessment (EIA) Act Awareness. However, though the percentage contribution is small, a cursory look at the table showed that  $F=21.620$  ( $p<.05$ ) is significant. Also since  $p(.000)$  is less than  $p(.05)$ , it implies that Environmental Impact Assessment (EIA) Act Awareness do significantly relate to biodiversity conservation.. Therefore the stated null hypothesis is rejected.

#### 4.2.2 Hypothesis two

Cross River State Forestry commission Law does not significantly relate with Biodiversity Conservation. The independent variable is Cross River State Forestry commission Law Awareness while the dependent variable is Biodiversity Conservations. To test this hypothesis, simple regression statistical analysis was used and the result as presented in Table 7.



TABLE 4

Descriptive statistics of the variables

Variables	N	Mean ( $\bar{x}$ )	S.D
Environmental impact analysis	600	12.87	2.13
Cross River State Forestry Law	600	10.99	1.62
<i>Endangered species Act</i>	600	11.05	1.91
Convention on biological diversity	600	12.10	1.65
Federal National Park Act	600	12.55	1.84
National Environmental Standard Regulation Enforcement Agency (NESREA) Act	600	12.26	1.69
Sea fisheries act	600	13.09	2.18
Biodiversity conservation	600	26.26	2.13

TABLE 5

Simple regression analysis relationship between Environmental Impact Assessment (EIA)

Act and Biodiversity Conservation in Cross River State

Variable	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error
Environmental Impact	.187 <sup>a</sup>	.035	.033	2.09456

Source of variation	SS	Df	MS	F	Sig.
Regression	94.853	1	94.853	21.620*	.000 <sup>b</sup>
Residual	2623.541	598	4.387		
Total	2718.393	599			

\*significant at  $p < .05$

TABLE 6

Simple regression analysis relationship between Cross River Forestry Law and Biodiversity

Conservation in Cross River State

Variable	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error		
Forestry Law	.121 <sup>a</sup>	.015	.013	2.11634		
Source of variation	SS	Df	MS	F	Sig.	
Regression	40.009	1	40.009	8.933 *	.003 <sup>b</sup>	
Residual	2678.384	598	4.479			
Total	2718.393	599				

\*significant at  $p < .05$

TABLE 7

Simple regression analysis relationship between Endangered species Act and Biodiversity

## Conservation in Cross River State

Variable	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error
Endangered species Act	.146 <sup>a</sup>	.021	.020	2.10912

Source of variation	SS	Df	MS	F	Sig.
Regression	58.265	1	58.265	13.098 *	.000 <sup>b</sup>
Residual	2660.128	598	4.448		
Total	2718.393	599			

\*significant at  $p < .05$

TABLE 8

Simple regression analysis relationship between International convention on diversity and Biodiversity Conservation in Cross River State

Variable	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error
International convention	.055 <sup>a</sup>	.003	.001	2.12881

Source of variation	SS	Df	MS	F	Sig.
Regression	8.362	1	8.362	1.845*	.175 <sup>b</sup>
Residual	2710.031	598	4.532		
Total	2718.393	599			

\*significant at  $p < .05$

TABLE 9  
 Simple regression analysis relationship Federal National Park Act Awareness and  
 Biodiversity Conservation in Cross River State

Variable	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error
International convention	.446 <sup>a</sup>	.199	.197	1.90848

Source of variation	SS	Df	MS	F	Sig.
Regression	540.308	1	540.308	148.343 *	.000 <sup>b</sup>
Residual	2178.086	598	3.642		
Total	2718.393	599			

\*significant at . p <.05

TABLE 10

Simple regression analysis relationship National Environmental Standard Regulation  
Enforcement Agency Act and Biodiversity Conservation in Cross River State

Variable	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error
Environmental Standard	.526 <sup>a</sup>	.277	.275	1.81331

Source of variation	SS	Df	MS	F	Sig.
Regression	752.119	1	752.119	228.741	*.000 <sup>b</sup>
Residual	1966.274	598	3.288		
Total	2718.393	599			

\*significant at .p <.05

TABLE 11

Simple regression analysis relationship Sea Fisheries Act and Biodiversity Conservation in  
Cross River State

Variable	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error
Sea Fisheries Act	.186 <sup>a</sup>	.035	.033	2.09476

Source of variation	SS	Df	MS	F	Sig.
Regression	94.357	1	94.357	21.503 *	.000 <sup>b</sup>
Residual	2624.037	598	4.388		
Total	2718.393	599			

\*significant at . p <.05



The analysis in Table 7 showed that the Adj  $R^2$  is 0.013. This implies that 1.3% of the variance in the dependent variable (Biodiversity Conservation) could be accounted for by Cross River State Forestry commission Law Awareness. However, though the percentage contribution is small, a cursory look at the table showed that  $F=8.933$  ( $p<.05$ ) is significant. Also since  $p(.003)$  is less than  $p(.05)$ , it implies that Cross River State forestry commission law Awareness do significantly relate to biodiversity conservation.. Therefore the stated null hypothesis is rejected.

#### 4.2.3 Hypothesis three

Endangered Species Act Awareness does not significantly relate with biodiversity conservation. The independent variable is Endangered Species Act while the dependent variables Biodiversity Conservations. To test this hypothesis, simple regression statistical analysis was used and the result as presented in Table 8.

The analysis in Table 8 showed that the Adj  $R^2$  is .020. This implies that 2.0% of the variance in the dependent variable (Biodiversity Conservation) could be accounted for by Endangered species Act Awareness. However, though the percentage contribution is small, a cursory look at the table showed that  $F=13.098$  ( $p<.05$ ) is significant. Also since  $p(.003)$  is less than  $p(.05)$ , it implies that Endangered species Act do significantly relate to biodiversity conservation.. Therefore the stated null hypothesis is rejected.

#### 4.2.4 Hypothesis four

International convention on diversity does not significantly relate with biodiversity conservation. The independent variable is International convention on biodiversity while the dependent variable is Biodiversity Conservations. To test this hypothesis, simple regression statistical analysis was used and the result as presented in Table 9.

The analysis in Table 9 showed that the Adj  $R^2$  is .001. This implies that 0.1% of the variance in the dependent variable (Biodiversity Conservation) could be accounted for by Endangered species Act Awareness. However, though the percentage contribution is small, a cursory look at the table showed that  $F=1.845$  ( $p<.05$ ) is not significant. Also since  $p(.175)$  is more than  $p(.05)$ , it implies that indeed International convention on biological diversity Awareness does not significantly relate to biodiversity conservation. Therefore the stated null hypothesis is accepted.

#### 4.2.5 Hypothesis five

Federal National Park Act Awareness does not significantly relate with biodiversity conservation. The independent variable is Federal National Park Act Awareness while the dependent variables is biodiversity Conservations. To test this hypothesis, simple regression statistical analysis was used and the result as presented in Table 10.

The analysis in Table 10 showed that the Adj  $R^2$  is 0.197. This implies that 19.7% of the variance in the dependent variable (Biodiversity Conservation) could be accounted for by Federal National Park Act Awareness. However, though the percentage contribution is small, a cursory look at the table showed that  $F=148.343$  ( $p<.05$ ) is very significant. Also since  $p(.000)$  is less than  $p(.05)$ , it implies that indeed Federal National Park Act Awareness is significantly related to biodiversity conservation. Therefore the stated null hypothesis is rejected

#### 4.2.6 Hypothesis six

National Environmental Standard Regulation Enforcement Agency Act Awareness does not significantly relate with biodiversity conservation. . The independent variable is National Environmental Standard Regulation Enforcement Agency Act Awareness while the

dependent variable is biodiversity Conservations. To test this hypothesis, simple regression statistical analysis was used and the result as presented in Table 11.

The analysis in Table 11 showed that the Adj  $R^2$  is .275. This implies that 27.5% of the variance in the dependent variable (Biodiversity Conservation) could be accounted for by Environmental Standard Regulation Enforcement Agency Act. However, though the percentage contribution is high, a cursory look at the table showed that  $F=228.741$  ( $p<.05$ ) is very significant. Also since  $p(.000)$  is less than  $p(.05)$ , it implies that indeed National Environmental Standard Regulation Enforcement Agency Act does not significantly relate to biodiversity conservation n. Therefore the stated null hypothesis is rejected

#### 4.2.7 Hypothesis seven

Sea Fisheries Act does not significantly relate to biodiversity conservation. The independent variable is Sea Fisheries Act while the dependent variable is Biodiversity Conservations. To test this hypothesis, simple regression statistical analysis was used and the result as presented in Table 12.

The analysis in Table 12 showed that the Adj  $R^2$  is 0.033. This implies that 3'3% of the variance in the dependent variable (Biodiversity Conservation) could be accounted for by Environmental Standard Regulation Enforcement Agency Act Awareness. However, though the percentage contribution is low, a cursory look at the table showed that  $F=21,503$  ( $p<.05$ ) is very significant. Also since  $p(.000)$  is less than  $p(.05)$ , it implies that indeed Sea Fisheries Act Awareness is significantly related to biodiversity conservation Therefore the stated null hypothesis is rejected

#### 4.2.8 Hypothesis eight

Cross River State Forestry Commission Law Awareness, Endangered Species Act Awareness, Convention on Biological Diversity Awareness, Federal National Park Act

Awareness, National Environmental Standard Regulations Enforcement agency Act Awareness and Sea Fisheries Act Awareness does not significantly relate to biodiversity conservation. The independent variable is composite collection of Cross River State Forestry Commission Law Awareness, Endangered Species Act Awareness, Convention on Biological Diversity Awareness, Federal National Park Act Awareness, National Environmental Standard Regulations Enforcement agency Act Awareness and Sea Fisheries Act Awareness while the dependent variable is biodiversity conservation. To test this hypothesis, multiple regression statistical analysis was used and the result as presented in Table 13. The analysis in table 13 showed that the Adj  $R^2$  is .535. This implies that 53.5% of the variance in the dependent variable (biodiversity conservation) could be accounted for by joint effect Cross River State Forestry Commission Law, Endangered Species Act, Convention on Biological Diversity, Federal National Park Act, National Environmental Standard Regulations Enforcement agency Act and Sea Fisheries Act. However, though the percentage contribution is fairly big, a cursory look at the table showed that calculated  $F=151.089$  ( $p<.05$ ) is highly significant. Since  $p(.000)$  is less than  $p(.05)$ , it implies that the Joint Awareness of Cross River State Forestry Commission Law Endangered Species Act Awareness, Convention on Biological Diversity, Federal National Park Act Awareness, National Environmental Standard Regulations Enforcement agency Act Awareness and Sea Fisheries Act Awareness indeed significantly relate to biodiversity conservation in Cross River State Nigeria.

Moreso. When the individual variables are taken, the result Endangered Species Act Awareness ( $\beta=0.746$ ;  $p<.000$ ) and Cross River State Forestry Commission Law Awareness ( $\beta .652$ ;  $p<.000$ ) having their p-values less than that  $p<.05$  are the highest predictors of, biodiversity conservation. While; International convention on diversity Awareness ( $\beta=.021$ ;  $p<.532$ ), is the least predictor of biodiversity conservation

TABLE 12

Multiple regression analysis of the joint effects of sub variables Cross River State Forestry Commission Law, Endangered Species Act, Convention on Biological Diversity, Federal National Park Act, National Environmental Standard Regulations Enforcement agency Act and Sea Fisheries Act

Variables	R	R <sup>2</sup>	Adj R <sup>2</sup>	Std. Error		
	.699 <sup>a</sup>	.489	.535	1.51838		

Source of variation	SS	Df	MS	F	Sig.
Regression	1627.393	1	79.265	151..098*	.000 <sup>b</sup>
Residual	1701.434	598	4.448		
Total	3328.827	599			

Variables	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	Std. Error			
(Constant)	82.129	1.330		22.056	.000
Environmental Impact Assessment (EIA) Act	.057	.037	.442	21.532	.000
Cross River State Forestry Law	.521	.097	.652	17.061	.000
Endangered Species Act	.346	.039	.746	18.869	.000
International convention diversity	.023	.055	.021	.410	.532
Federal National Park Decree	-.130	.087	-.532	-11.029	.000
Sea Fisheries Act	-.798	.041	-.557	11.644	.000

\*significant at  $p < .05$

have this developed instruments that attempts to ensure a No Net Loss (NNL) of biodiversity in the face of land development.

However, the findings of the study is in disagreement with that of Apostolopoulou & Adams (2015), who asserted that, the development of the NNL paradigm and its application in land-use planning has however encountered difficulties due to inconsistencies in the way its underlying concepts are framed. Indeed, in practice, NNL appears to be impossible there is nearly always some form of decline in biodiversity- a sort of generalized net loss impossible to avoid, but never explicitly presented (Aronso & Morenomatoes, 2015). In relation to these difficulties, many countries have developed two main instruments to apply NNL policy in their land use planning procedures. The first of these instruments concerns environmental Impact Assessment (EIA) that developed during the 1970's to become key instrument in site specific planning for biodiversity and environmental management (Morgan, 2012 Mandelik, Dayan & Feitelson, 2015).

Byron (2010) also on the contrary observed a recurrent weakness in identification of impacts and conservation impacts and conservation stakes associated to biodiversity and landscape ecological context. EIA contributes to assessment and anticipation of development projects and their impact on the environment and to the adoption of proactive policy to mitigate the impact of such projects. However, many authors have pointed out recurrent weakness in the identification of impacts and conservation stakes associated with biodiversity and landscape ecological content (Byron, 2010).

#### 4.3.2 Cross River Forestry Commission law and biodiversity conservation.

The findings from analysis of the second hypothesis stated that the null hypothesis was rejected and the alternative hypothesis upheld which implied that indeed Cross River Forestry Commission law is significantly related biodiversity conservation. This result is in line with Agrawal and Lemons (2017), who stated that biodiversity depletion rate will depend on the number of species present in a particular area of forest, the distribution of the forest and the extent of disturbance or degradation of those areas which remain forested.

Furthermore, in agreement with the findings of Agababi, Abang and Animashaun (2005), outline the following ways of conservation biodiversity: conducting in detail national survey to assess the present state and patterns of biodiversity, developing a national strategy to serve and sustainably use biodiversity, encouraging the traditional methods of agriculture/land use management and encouraging active participation /greater or total involvement of local communities and indigenous people in conserving and managing biodiversity.

Also in support of the findings, Unasyuva (1993), as quoted by (Bisong 2001), contend that forest policy is concerned with the manner in which forest and tree resources are managed to serve the needs of the people and meet society's demand for goods and services that forest and forestry can provide with regards to non- material value of trees and forests. Forest policy will only be effective to the extent that they are supported by adequate institutions and resources for implementation.

The Cross River State Forest Commission Law 2010 (part iii) empowers the commission to make regulations declaring any area to be a protected area. The law provides that: any person who hunts, kills or captures any animal in contravention of any

law or regulation, or is found within a protected area in circumstances showing that he was unlawfully in pursuit of any animal commits an offence under this law. Where it appears to the Conservator General that any method used for killing or capturing any animal is unduly destructive, the Commission may by regulations prohibit such methods or prescribe the conditions under which any method may be used (CRSFCL, 2010).

#### 4.3.3 Endangered species Act, CAP E9, LFN 2004 Awareness and Biodiversity Conservation

The findings from analysis of the third hypothesis showed that the null hypothesis was rejected and the alternative upheld implying that there is a significant relationship between endangered species Act, CAP E9, LFN 2004 Awareness and Biodiversity Conservation in Cross River State. This finding is in line with the work of Fischman, Castelli and Meresky (2021) in their study on collaborative governance under the endangered species act examined nearly two hundred ESA, protective regulation that ensured federal restrictions to the ecological and social circumstances of particular extinction threats. Their study explores how the rules manifest collaborative governance, as well as the extent to which they promote imperiled species recovery. The result showed that collaborative governance transforms the ESA from a statute prohibiting certain outcomes (such as harm or jeopardy to a species) to regulatory programme implementing collaboratively crafted best practices along the lives of pollution control statues.

Also, in support of the findings of the study, Armitage (2008) opined that, endangered species act was passed in order to give effect to Nigeria's international obligation and under the convention on international trade in endangered species to join



in controlling international trade and traffic in endangered wild species. Still in agreement with the present result, Greenbolt (2012), stated that the complexity of the planets ecosystems means that the loss of any species has unexpected consequences. The stronger the impact of biodiversity, the stronger the likelihood of chain reaction with unpredictable negative effects.

Also in agreement with the findings, Pore and Sayer (2012), noted that biodiversity is seriously threatened as a result of trade in endangered species. However, Goen and Guller (2018) has criticized the endangered species act noticing that the act has minimal flexibility and that there are perceived delay in the implementation of the act. Notwithstanding, the researcher is in agreement with the scholars whose views supported the finding in the endangered species act has curtailing the rate of trade in endangered species hence contributing immensely to biodiversity conservation.

#### 4.3.4 Conventional biological diversity Awareness and biodiversity conservation

The findings from analysis of the fourth hypothesis revealed that the null hypothesis was upheld implying that the Convention of Biological Diversity (CBD) Awareness is not significantly related to biodiversity conservation in Cross River State. However, most scholars view are contrary to the findings of this work for instance, Mathew (2016) conducted a study on effectiveness of convention on biological diversity in biodiversity conservation and the result revealed that convention on biological diversity has a significant influence on biodiversity conservation in Jos, Plateau State. Also, contrary to the result of this finding, Jonathan (2020) conducted a study on effectiveness of convention on biological diversity in environmental resource management. The findings also revealed that there is a significant influence on convention of biological diversity on environmental resource management.

There are a lot of scholars whose views contradict the findings of this study. Even the researcher was marveled at the result of the findings given that he is of the view that convention of biological diversity has contributed immensely to biodiversity conservation. However, the result of the findings is subject to verification through further researches.

#### 4.3.5 Federal National Park Management Act CAP N65, LFN 2004 Awareness and Biodiversity Conservation.

The findings from analysis hypothesis five showed that the null hypothesis was rejected and the alternate hypothesis upheld. This implied that indeed Federal National Park Management Act CAP N65, LFN 2004 Awareness is significantly related to Biodiversity Conservation in Cross River State. This is in agreement with Amakiri (2010), who observed that, the efficacy of national park could be seen in the ecological processes and life support systems, protection of the environment, particularly watershed areas. They play important roles in science and education; they preserve our indigenous genetic resources that are the basis of any meaningful advancement in our Agricultural system and technology, etc. Indeed given our high population and our dependence on natural sources for much of our food, fiber and medicine, the role national parks play far outweigh all other benefits and is not quantifiable in monetary terms. Cross River State is currently beset with many environmental problems such as deforestation, drought, desertification, sheet, gully and coastal erosion and flooding, loss of biological resources, etc. without doubt, the national parks stand to offer some antidote to these ills. The national parks are essentially today's investments for Nigeria's tomorrow so that generations yet unborn can have a secure future.

Also, in accordance with the findings Muhumuzah (2017) conducted a study on factors affecting the success of biodiversity conservation in national parks. The result revealed that all factors responsible for both the success and failure of national parks are socioeconomic and cultural in nature. Also in line with the study, Isugo and Obiola (2015) conducted a study on community participation in wildlife conservation and protection and found out that, community leaders and youths play key roles in educating their members on importance of wildlife conservation. So far, scholars seem to agree with the findings of this study. The researcher strongly believed that national park act has contributed tremendously to biodiversity conservation in the state in particular and in the country in general.

According to the National Park Act 36 of 1991, the mission of national park is to manage and regulate the use of these unique ecosystems designated as national parks of such means and measures to preserve and conserve Nigeria heritage, particularly the fauna and flora, the habitats they live in, and the unique sceneries they afford. Its mission is to also provide human benefits and enjoyment in such manner and by such means so that these are left unspoiled for generations to come

#### 4.3.6 National environmental standard, regulations enforcement agency act 2007, Act No. 25 Awareness and biodiversity conservation

The findings from analysis of hypothesis six showed that the null hypothesis was rejected implying that National environmental standard, regulations enforcement agency act 2007, Act No. 25 is truly significantly related to biodiversity conservation in Cross River State. The above findings agrees with Ladan (2011) who stated that the National Environmental Standards and regulation Enforcement Agency is currently the major Federal body charged with the protection of Nigeria environment, NESRA was created

by the NESREA Act 32. The federal government in line with section 20 of the 1999 constitution, established the agency as an institution under the supervision of the federal Ministry of Environment, Housing and urban development. NESREA Act was created to replace the defunct federal environment protection agency (FEPA). In examining the enforcement of preventive principle in Nigeria, it is necessary to take a look at the establishment, mandate and powers of NESREA established by the NESREA Act, 2007.

Also in line with the result of the study, Valery (2019) who conducted a study on NESREA Act and biodiversity conservation revealed that NESREA act has contributed immensely to biodiversity conservation in the study area. However, Frynas (2018) contradicts this finding by analyzing the Nigerian situation in terms of NESREA Act. He believes that Nigerian state revenues were extracted from taxes and rents largely in the form of oil revenue from foreign companies rather than from productive activities. Arguing further, he concluded that the linkage between Nigerian business and foreign capital dominates the Nigerian political economy and as a result, the state is biased in favour of oil capitalist, a problem which NESREA has failed to curb.

#### 4.3.7 Sea fisheries act S4, LFN 2004 Awareness and biodiversity conservation

The findings from analysis of hypothesis seven revealed that the null hypothesis was rejected implying that Sea fisheries act S4, LFN 2004 has a significant relationship with biodiversity conservation. The above result is in line with Akpan (2017), stating that more and more people than ever before rely on fisheries in the developing countries for food and as a source of income but harmful practices and a poor management have threatened the sector's sustainability.

Also in support of the findings, Bisong (2018) carried out a study on implication of sea fisheries act on biodiversity conservation. The result revealed that all the sections

of the act has contributed immensely to biodiversity conservation. The Nigerian fisheries act has primarily face three basic objectives which are for the control, regulation and protection of sea fisheries in the territorial waters in Nigeria. There is urgent need to conserve marine biodiversity especially the fish nation. In order to actualize these objectives, the act makes provision for a licensing officer to grant license to any person, on application; based on the prescribed form. Who owns a motor fishing boat among others for fish taking in the territorial water in Nigeria and for other related fishing activities (Ibid, S. a-c). Under this act, the minister is empowered to make regulation in furtherance of the objectives in the act (Sea Fisheries act No. 71 LFN, 1992). It is also a criminal act for any person to engage in fish taking by adopting unauthorized and dangerous means which could result in the extinction and depletion of fish stock in the Nigerian waters, as described under the Act as well as endanger the lives of the ultimate consumers.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

The summary together with the conclusion and recommendations for further studies constitute the focus of this chapter. This was presented under the following sub-headings

- 5.1 Summary of the study
- 5.2 Conclusion
- 5.3 Recommendations
- 5.4 Suggestions for further studies

#### 5.1 Summary of the study

The general purpose of the study is to determine the relationship between environmental legislation and biodiversity conservation in Cross River State. In order to accomplish this, eight hypotheses were formulated based on the research questions raised to guide the study.

The hypotheses formulated were stated as follows:

1. Environmental Impact Assessment (EIA) Act awareness does not significantly relate to biodiversity conservation.
2. Cross River State Forestry Law awareness does not significantly relate to Biodiversity Conservation
3. Endangered Species Act awareness does not significantly relate to biodiversity conservation.
4. International convention diversity awareness does not significantly relate to biodiversity conservation.
5. Federal National Park Decree awareness does not significantly relate to biodiversity conservation.

6. National Environmental Standard Regulation Enforcement Agency Act awareness does not significantly relate to biodiversity conservation.
7. Sea Fisheries Act awareness does not significantly relate to biodiversity conservation.
8. Cross River State Forestry Commission Law awareness, Endangered Species Act awareness, Convention on Biological Diversity awareness, Federal National Park Act awareness, National Environmental Standard Regulations Enforcement agency Act awareness and Sea Fisheries Act awareness does not significantly relate to biodiversity conservation

The researcher reviewed the findings of previous researches and views of some proponents and authors on the above variables as well as other related issues on educational research to support the study. Correlational research designed was adopted for the study. The designed was considered appropriate because it allows the researcher to make inference and generalization of the population by selecting and studying the sample of the study.

The sample for this study was 600 registered farmers out of a total of 449% registered farmers using 13.3% to select the total sample from each community. The sampling procedure adopted for this study is a purposive and simple random sampling technique. The instrument for data collection is a questionnaire titled; "Environment Legislation and Biodiversity Conservation Questionnaire (ELBCQ)". The reliability estimate of the instrument was established through cronbach alpha reliability method. The data obtained from the questionnaire was duly coded and subjected to statistical analysis as follows; simple regression for hypotheses, 1, to 7 and multi regression analysis was used to analyze hypothesis eight under study. Each hypothesis was tested at 0.5 level of significance. The following findings emerged from the data analysis:

1. Environmental Impact Assessment (EIA) Act awareness is significantly related to biodiversity conservation.

2. Cross River State Forestry Law awareness is significantly related to Biodiversity Conservation
3. Endangered Species Act awareness is significantly related to biodiversity conservation.
4. International convention diversity awareness is not significantly related to biodiversity conservation.
5. Federal National Park Decree awareness does not significantly relate to biodiversity conservation.
6. National Environmental Standard Regulation Enforcement Agency Act does not significantly relate with biodiversity conservation in Cross River State
7. Sea Fisheries Act is significantly related to biodiversity conservation in Cross River State
8. Cross River State Forestry Commission Law awareness, Endangered Species Act awareness, Convention on Biological Diversity awareness, Federal National Park Act awareness, National Environmental Standard Regulations Enforcement agency Act awareness and Sea Fisheries Act awareness are significantly jointly related to biodiversity conservation in Cross River State

## 5.2 Conclusion

Based on the result of the study, it was concluded that there is a significant relationship between six of the sub-independent variables (environmental impact assessment act awareness, Cross River State forestry commission law awareness, endangered species act awareness, federal national park act awareness, NESREA act awareness) and biodiversity conservation. But one of the sub-independent variables which is convention on biological diversity does not significantly relate to biodiversity conservation. Also, the joint influence of



environmental legislations in Cross River State significantly relate to biodiversity conservation. There is need for the public to be aware of these environmental legislations and comply with them in order to ensure a sustainable biodiversity.

### 5.3 Recommendations

1. There should be a compulsory Environmental Impact Assessment of any developmental project to ascertain the environmental impact before such project will be approve to take off and this laws and Act should be enforced accordingly.
2. Cross River State Government should, as a matter of urgency empower the Green Sherrif, forest guards and other relevant agencies to enforce the state law regarding over exploitation of the biodiversity
3. Laws regarding hunting of endangered animals in forest reserve area should be enforced strictly by the authorities concerned by imposing strict punishment for defaulters.
4. Effort should be made by the federal and state government to seek the intervention of international bodies through regular conventions on biological diversity to be able to curtail the problem of biodiversity conservation.
5. The management of national park should be fully empowered in term of human, material and financial resources to protect the biodiversity in the pack from intruders that are mostly from the local communities around the Parks
6. National Environmental Standards, Regulation Enforcement Agency should be credible enough to uphold environmental standards without fear or favour
7. The activities of the fishermen should be regulated. This will help in checking their activities especially the once that fish with poisons or dynamites to prevent the killing of other aquatic life through pollution.

#### 5.4 **Suggestions for further research**

The outcome of the findings in the research work enabled the researcher to make the following suggestions for further research:

1. This present study was undertaken in Cross River State, similar study could be carried out in other states to further validate the present result.
2. There should be a repetition of this study with either similar or different population to truly ascertain the validity and reliability of the present research work.
3. Similar study should be carried out using other variables not the ones used in this study.

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## APPENDIX I

### RESEARCH QUESTIONNAIRE ON ENVIRONMENTAL LEGISLATIONS ON BIODIVERSITY CONSERVATION IN CROSS RIVER STATE

Dear Respondent,

*This questionnaire is intended to obtain information on environmental*  
legislations and biodiversity conservation in Cross River State, Nigeria and for  
academic purpose only. The information will be treated, with utmost confidentiality.  
Your honest response and co-operation is highly solicited.

Please do well to read the instructions before responding to the items. Feel free  
to respond to all items as they appeal to you.

I appreciate your understanding.

**Abang, Thomas Agbor  
(Researcher)**

## SECTION A: DEMOGRAPHIC DATA

Instruction: You are please required to supply the needed information with a tick (✓) at the appropriate space as it appeals to you in each case.

1. Sex: (a) Male [ ] (b) Female [ ].
2. Marital status: (a) Single [ ] (b) Married [ ] (c) Divorced [ ]
3. Educational Background: FSLC [ ], WAEC/GCE [ ], NCE/DIPLOMA [ ] B.Ed/B.Sc [ ], M.Ed/Ph.D [ ]
4. Primary Occupation: Farmer

## SECTION B

## ENVIRONMENTAL LEGISLATIONS AND BIODIVERSITY CONSERVATION SCALE

Below are statements which you are please requested to respond to by ticking in the appropriate column, the option that best expresses your opinion. These opinions are Strongly agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

S/N	STATEMENT	SA	A	D	SD
	Environmental Impact Assessment (EIA) Act				
	In my community, I am aware that:				
1	Environmental impact assessment is necessary before embarking on any private or public project.				
2	Most individual and organization do not carry out EIA before embarking on private or public project				
3	Environmental impact assessment has caused more harm than good to biodiversity in my community				
4	Environmental impact assessment act has contributed immensely to biodiversity conservation in my area.				
5	Environmental impact assessment is a powerful tool in conserving biodiversity.				
6	I cannot say if EIA has contributed to biodiversity				

	conservation or not				
Cross River State Forestry Laws					
Where I reside, I am aware that:					
6.	They are laws that regulate harvesting of forest resources.				
7	Forest legislations by the government can prevent biodiversity loss.				
8	Inadequate monitoring by the forestry commission is one of the causes of illegal logging activities.				
9.	Forestry laws have proved to be very effective in biodiversity conservation in my community.				
10.	People don't appreciate the relevance of forest legislations.				
Endangered Species Act					
I believe that:					
11	The endangered species act has contributed immensely in the preservation of our forest.				
12	As a result of the endangered species act wildlife is preserved in my community.				
13.	Biodiversity depletion have reduced to the bearest minimum as a result of the endangered species.				
14.	Bush meat trade has reduced drastically in my community as a result of endangered species act.				
15.	In my community, we are conscious of endangered species act.				
Convention on Biological Diversity					
In my area, I have observed that:					
16.	The CBD contributions to biodiversity conservation in my community are enormous.				
17	The CBD marks the beginning of biodiversity conservation in Cross River State.				
18	The CBD has contributed immensely to the reduction of bush meat trade in my community.				

19	Biodiversity depletion has reduced drastically courtesy of the CBD				
20	Cross River State is abiding by the rules and regulations of convention and biodiversity.				
National Park Act					
I am aware that:					
21	The National Park Act led to the establishment of Cross River State National Park (CRNP).				
22.	Cross River National Park is paramount to wildlife conservation in Cross River State				
23	Primarily, National Parks are created to conserve the flora and fauna biodiversity found in natural areas.				
24	Diverse species of monkeys have been conserved in the state as a result of National Park Act				
25	National parks are recognized worldwide as being the most effective method of improving the conservation and biodiversity values of reserves				
National Environmental Standards, Regulation Enforcement Agency Act					
I know that:					
26	NESREA Act empowered the FME to arrest violators of any law concerning biodiversity conservation.				
27	NESREA Act instigated biodiversity conservation NGOs to function effectively in Cross River State.				
28	NESREA Act contribution to biodiversity conservation is highly encouraging				
29	NESREA Act has contributed greatly to the reduction of bush meat trade in Cross River State.				
30.	NESREA is a “watch dog” to biodiversity conservation.				
Sea fishery act					
In my community, I noticed that:					



31	Sea fishery act has reduced the rate of illegal fishing in my community.				
32	Sea fisheries act has contributed immensely to biodiversity conservation.				
33	Sea fisheries act has nothing to do with biodiversity conservation				
34	Fishermen no longer use poisonous chemical in fishing in my community				
35	My community members are now aware of the reactive effect of biodiversity if abused				
Biodiversity Conservation					
In my area of residence, I perceived that:					
36	Selective logging will enhance biodiversity conservation in my community.				
37	Biodiversity conservation has promoted wildlife in my community.				
38	Biodiversity conservation and convention on biological diversity are strongly related				
39	Biodiversity conservation and national park management decree are strongly related				
40	Biodiversity conservation was the major reason for the establishment of federal environmental protection act				
41	There is no need to promote biodiversity conservation				

42	Biodiversity conservation should be highly encourage in my community				
43	Public enlightenment campaign should be carried out on biodiversity conservation				
44	Biodiversity conservation promotes environmental resource sustainability				
45	Practices that depletes biodiversity should be discouraged				

## APPENDIX II

GET

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 /NOORIGIN  
 /DEPENDENT BIODIVERSITY\_CONSERVATION  
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## Regression

## Notes

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	Cases Used	

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#### Descriptive Statistics

	Mean	Std. Deviation	N
BIODIVERSITY_CONSERV ATION	26.2633	2.13031	600
ENVIRONMENTAL_IMPAC CT	12.0867	1.64327	600

#### Correlations

		BIODIVERSITY_ CONSERVATIO N	ENVIRONMEN TAL_IMPACT
Pearson Correlation	BIODIVERSITY_CONSERV ATION	1.000	-.187
	ENVIRONMENTAL_IMPAC T	-.187	1.000
Sig. (1-tailed)	BIODIVERSITY_CONSERV ATION	.	.000

N	ENVIRONMENTAL_IMPACT	.000	.
	BIODIVERSITY_CONSERVATION	600	600
	ENVIRONMENTAL_IMPACT	600	600

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	ENVIRONMENTAL_IMPACT <sup>b</sup>	.	Enter

a. Dependent Variable:

BIODIVERSITY\_CONSERVATION

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.187 <sup>a</sup>	.035	.033	2.09456	.035	21.620	1	598	.000

a. Predictors: (Constant), ENVIRONMENTAL\_IMPACT

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	94.853	1	94.853	21.620	.000 <sup>b</sup>
	Residual	2623.541	598	4.387		
	Total	2718.393	599			

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

b. Predictors: (Constant), ENVIRONMENTAL\_IMPACT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	29.190	.635		45.950	.000
	ENVIRONMENTAL_IMPACT	-.242	.052	-.187	-4.650	.000

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

```

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/STATISTICS COEFF OUTS R ANOVA CHANGE
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/NOORIGIN
/DEPENDENT BIODIVERSITY_CONSERVATION
/METHOD=ENTER FORESTRY_LAW.

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### Regression

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	Cases Used	

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#### Descriptive Statistics

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FORESTRY_LAW	10.9900	1.62408	600

#### Correlations

		BIODIVERSITY_CONSERVATION	FORESTRY_LAW
Pearson Correlation	BIODIVERSITY_CONSERVATION	1.000	-.121
	FORESTRY_LAW	-.121	1.000
Sig. (1-tailed)	BIODIVERSITY_CONSERVATION	.	.001
	FORESTRY_LAW	.001	.
N	BIODIVERSITY_CONSERVATION	600	600
	FORESTRY_LAW	600	600

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	FORESTRY_LAW <sup>b</sup>	.	Enter

a. Dependent Variable:

BIODIVERSITY\_CONSERVATION

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.121 <sup>a</sup>	.015	.013	2.11634	.015	8.933	1	598	.003

a. Predictors: (Constant), FORESTRY\_LAW

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	40.009	1	40.009	8.933	.003 <sup>b</sup>
	Residual	2678.384	598	4.479		
	Total	2718.393	599			

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

b. Predictors: (Constant), FORESTRY\_LAW

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	28.012	.591		47.359	.000
	FORESTRY_LAW	-.159	.053	-.121	-2.989	.003

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

**REGRESSION**

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/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA CHANGE

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/NOORIGIN

/DEPENDENT BIODIVERSITY\_CONSERVATION

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## Regression

## Notes

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Missing Value Handling	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT BIODIVERSITY_CONSERVA TION /METHOD=ENTER ENDANGERED_SPECIES.
Resources	Processor Time	00:00:00.03
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	Memory Required	1476 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet1] C:\Users\MR. I\Desktop\iquelegistratation coding - Copy.sav

**Descriptive Statistics**

	Mean	Std. Deviation	N
BIODIVERSITY_CONSERVATION	26.2633	2.13031	600
ENDANGERED_SPECIES	11.0517	1.91183	600

**Correlations**

		BIODIVERSITY_CONSERVATION	ENDANGERED_SPECIES
Pearson Correlation	BIODIVERSITY_CONSERVATION	1.000	-.146
	ENDANGERED_SPECIES	-.146	1.000
Sig. (1-tailed)	BIODIVERSITY_CONSERVATION	.	.000
	ENDANGERED_SPECIES	.000	.
N	BIODIVERSITY_CONSERVATION	600	600
	ENDANGERED_SPECIES	600	600

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	ENDANGERED_SPECIES <sup>b</sup>	.	Enter

a. Dependent Variable:

BIODIVERSITY\_CONSERVATION

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.146 <sup>a</sup>	.021	.020	2.10912	.021	13.098	1	598	.000

a. Predictors: (Constant), ENDANGERED\_SPECIES

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	58.265	1	58.265	13.098	.000 <sup>b</sup>
	Residual	2660.128	598	4.448		
	Total	2718.393	599			

- a. Dependent Variable: BIODIVERSITY\_CONSERVATION  
 b. Predictors: (Constant), ENDANGERED\_SPECIES

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	28.066	.506		55.517	.000
	ENDANGERED_SPECIES	-.163	.045	-.146	-3.619	.000

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

**REGRESSION**

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/DEPENDENT BIODIVERSITY_CONSERVATION
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**Regression****Notes**

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#### Descriptive Statistics

	Mean	Std. Deviation	N
BIODIVERSITY_CONSERV ATION	26.2633	2.13031	600
CONVENTIONAL	12.1017	1.65405	600

#### Correlations

		BIODIVERSITY_ CONSERVATIO N	CONVENTIONA L
Pearson Correlation	BIODIVERSITY_CONSERVA TION	1.000	-.055
	CONVENTIONAL	-.055	1.000
Sig. (1-tailed)	BIODIVERSITY_CONSERVA TION	.	.087
	CONVENTIONAL	.087	.
N	BIODIVERSITY_CONSERVA TION	600	600
	CONVENTIONAL	600	600

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
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a. Dependent Variable:

BIODIVERSITY\_CONSERVATION

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.055 <sup>a</sup>	.003	.001	2.12881	.003	1.845	1	598	.175

a. Predictors: (Constant), CONVENTIONAL

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.362	1	8.362	1.845	.175 <sup>b</sup>
	Residual	2710.031	598	4.532		
	Total	2718.393	599			

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

b. Predictors: (Constant), CONVENTIONAL

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.128	.642		42.236	.000
	CONVENTIONAL	-.071	.053	-.055	-1.358	.175

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

**REGRESSION**

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/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
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/DEPENDENT BIODIVERSITY_CONSERVATION
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## Regression

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**Descriptive Statistics**

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BIODIVERSITY_CONSERVATION	26.2633	2.13031	600
NATIONAL_PARK	12.5467	1.83578	600

**Correlations**

		BIODIVERSITY_CONSERVATION	NATIONAL_PARK
Pearson Correlation	BIODIVERSITY_CONSERVATION	1.000	-.446
	NATIONAL_PARK	-.446	1.000
Sig. (1-tailed)	BIODIVERSITY_CONSERVATION	.	.000
	NATIONAL_PARK	.000	.
N	BIODIVERSITY_CONSERVATION	600	600
	NATIONAL_PARK	600	600

=

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
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a. Dependent Variable:

BIODIVERSITY\_CONSERVATION

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.446 <sup>a</sup>	.199	.197	1.90848	.199	148.343	1	598	.000

a. Predictors: (Constant), NATIONAL\_PARK

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	540.308	1	540.308	148.343	.000 <sup>b</sup>
	Residual	2178.086	598	3.642		
	Total	2718.393	599			

- a. Dependent Variable: BIODIVERSITY\_CONSERVATION  
 b. Predictors: (Constant), NATIONAL\_PARK

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	32.754	.539		60.813	.000
	NATIONAL_PARK	-.517	.042	-.446	-12.180	.000

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

**REGRESSION**

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/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
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/NOORIGIN
/DEPENDENT BIODIVERSITY_CONSERVATION
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**Regression****Notes**

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Descriptive Statistics

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NATIONAL_STANDARD	12.4333	1.69913	600

Correlations

		BIODIVERSITY_CONSERVATION	NATIONAL_STANDARD
Pearson Correlation	BIODIVERSITY_CONSERVATION	1.000	-.526
	NATIONAL_STANDARD	-.526	1.000
Sig. (1-tailed)	BIODIVERSITY_CONSERVATION	.	.000

NATIONAL\_STANDARD

N	NATIONAL_STANDARD	.000	.
	BIODIVERSITY_CONSERVA TION	600	600
	NATIONAL_STANDARD	600	600

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
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BIODIVERSITY\_CONSERVATION

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1	.526 <sup>a</sup>	.277	.275	1.81331	.277	228.741	1	598	.000

a. Predictors: (Constant), NATIONAL\_STANDARD

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	752.119	1	752.119	228.741	.000 <sup>b</sup>
	Residual	1966.274	598	3.288		
	Total	2718.393	599			

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

b. Predictors: (Constant), NATIONAL\_STANDARD

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	34.463	.547		62.983	.000
	NATIONAL_STANDARD	-.659	.044	-.526	-15.124	.000

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

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REGRESSION
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/STATISTICS COEFF OUTS R ANOVA CHANGE
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/DEPENDENT BIODIVERSITY_CONSERVATION
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Regression

Notes

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### Descriptive Statistics

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### Correlations

		BIODIVERSITY_CONSERVATION	FISHERIES_ACT
Pearson Correlation	BIODIVERSITY_CONSERVATION	1.000	-.186
	FISHERIES_ACT	-.186	1.000
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	FISHERIES_ACT	600	600

### Variables Entered/Removed<sup>a</sup>

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a. Predictors: (Constant), FISHERIES\_ACT

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	94.357	1	94.357	21.503	.000 <sup>b</sup>
	Residual	2624.037	598	4.388		
	Total	2718.393	599			

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

b. Predictors: (Constant), FISHERIES\_ACT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	28.706	.534		53.788	.000
	FISHERIES_ACT	-.187	.040	-.186	-4.637	.000

a. Dependent Variable: BIODIVERSITY\_CONSERVATION

**PYSCHOSOCIAL AND CULTURAL VARIABLES  
INFLUENCING DISCLOSURE AND HELP  
SEEKING BEHAVIOUR OF RAPE VICTIMS IN  
CENTRAL SENATORIAL DISTRICT OF CROSS  
RIVER STATE, NIGERIA**

**BY**

**ETENG, WOMI SAMUEL  
SOC/Ph.D/17/025**

**DOCTORAL DISSERTATION CARRIED OUT IN THE  
DEPARTMENT OF SOCIOLOGY  
FACULTY OF SOCIAL SCIENCES  
UNIVERSITY OF CALABAR**

**SUBMITTED TO**

**DEPARTMENT OF SOCIOLOGY  
FACULTY OF SOCIAL SCIENCES  
UNIVERSITY OF CALABAR**

**IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE  
AWARD OF DOCTOR OF PHILOSOPHY (Ph.D) DEGREE IN  
SOCIOLOGY (MEDICAL SOCIOLOGY)**

**MARCH 2021**

**DECLARATION**

I, Eteng, Womi Samuel, with registration number **SOC/Ph.D/17/025** hereby certify that this dissertation on "Psychosocial and cultural variables influencing disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria" is original, and has been written by me. It is a record of my research work and has not been presented before in any previous publication.

Eteng, Womi Samuel  
SOC/Ph.D/17/025

Signature: Womi Samuel Eteng

Date 14/7/21

## CERTIFICATION

This is to certify that this dissertation titled "Psychosocial and cultural variables influencing disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria" and carried out by Eteng, Womi Samuel with Registration Number SOC/Ph.D/17/025, has been examined and found worthy for the award of Doctorate (Ph.D.) Degree in Sociology (Medical).

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Signature: 


Date: 14/7/2021

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Date: 14/7/2021

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Signature: 

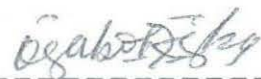
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Date: 14/7/2021

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Status: Ph.D PROFESSOR

Signature: 

Date: 14/07/2021



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## ABSTRACT

The study examines psychosocial and cultural variables influencing disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria. Specifically, the study sought to determine the extent to which fear of stigmatization, victim relationship to perpetrator, attitude of law enforcement agent, and cultural belief influences disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. The study adopted cross-sectional survey research design. Data were gathered from both primary and secondary sources. One thousand five hundred and thirty-four (1534) respondents were selected from a population of 941,774 from Central Senatorial District of Cross River State, Nigeria, using stratified sampling technique, simple random, and purposive sampling technique. A self-report questionnaire developed by researcher and approved by the supervisors was used as instrument for data collection. The obtained data were statistically analysed using simple linear regression. Each hypothesis was tested at 0.05 per cent level of significance. The result obtained from the analysis revealed that, Stigmatization significantly influences disclosure and help-seeking behavior of rape victims in the Central Senatorial District of Cross River State. Victim relationship to perpetrator significantly affects disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State. Result also revealed that the attitude of law enforcement agent significantly influences disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State. Finally, cultural belief significantly influences disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State. The study concludes that psychosocial and cultural factors such as stigmatization, victim relationship to perpetrator, attitude of law enforcement agent, and cultural belief are significant predictors of disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State. The study recommended among others that law enforcement agents must show empathy to rape victims and must not be judgmental by seeing victims as the cause of what happens to them.

**(Word Count: 227).**

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

Rape is a global social, health and human rights problem that has been largely undisclosed by most survivors, underreported by journalists and understudied by scholars. It is a traumatic experience with devastating health consequences, affecting both women and men globally, irrespective of class, culture, race, educational status, income and ethnic affiliation (Ezugwu, Ohayi, Iyoke, & Nnaji, 2017; Falade, & Fasuan, 2017). Rape involves lack of consent, the use of physical force, deception or threat, and the involvement of a victim that is asleep, unconscious, under aged, mentally incapacitated or physically impaired as a result of voluntary or involuntary alcohol or drug consumption. It is often associated with psychological, physical, and social trauma; indeed, it occasionally results in fatality either from shock, severe injury or murder by the perpetrator in an attempt to conceal their identity (Ezechi, Musa, David, Wapmuk, Gbajabiamila, Idigbe, Ezeobi, Ohihoin, & Ujah, 2016).

Rape can take many forms, such as date rape, power rape, gang rape, anger or retaliatory rape, and sadistic rape, and can occur under very different circumstances (Eteng, Osonwa & Attah, 2021; Ellsberg, Murphy, Blackwell, Macrne, Reddy, Hollowell, Hess & Contreras-Urbin, 2021). Rape victims are often assaulted by one individual or several people (e.g. gang-rapes); the incident may be planned or a surprise attack. Although rape occurs most commonly in the victim's home, the perpetrator's home, or the dark corner of the street, it also

takes place in many other settings, such as the workplace, at school, in prisons, cars, the streets or open spaces (e.g. parks, farmland). The perpetrator of a sexual assault may be a date, an acquaintance, a friend, a family member, an intimate partner or former intimate partner, or a stranger, but more often than not, it is someone known to the victim. There is no stereotypical perpetrator; sexually violent men come from all backgrounds, rich and poor, academic and uneducated, religious and non-religious. Perpetrators may be persons in positions of authority who are respected and trusted (e.g. a doctor, teacher, tourist guide, priest, police officer) and thus less likely to be suspected of being a rapist. Simultaneously, it is generally acknowledged that rape is pervasive in all countries and at all levels of society; available statistics concerning the prevalence of rape around the world in general and in Nigeria, in particular, are minimal.

Rape, whatever the form it takes, could lead to physical injuries, psychopathologies, social consequences, and reproductive health complications, including sexually transmitted infections and unwanted pregnancy (Eby, Campbell, Sullivan, & Davidson, 1995; World Health Organisation, 2010). Achunike and Kitause (2014) highlighted the consequences of rape on survivors, including physical injuries, fatigue and chronic headaches, and emotional problems, such as suicide attempts, stress disorders, depression, and sexual dysfunction. Alcohol and drug abuse were also reported to be prominent among rape victims. Akinlusi, Rabi, Olawepo, Adewunmi, Ottun and Akinola (2014) argued that the impact of rape could be immediate or delayed with long-term

health consequences for survivors. They maintained that most survivors suffer significant psychological and socio-economic consequences. The health consequences include physical injuries, unwanted pregnancies, unsafe abortions and sexually transmitted diseases, including HIV (Akinlusi, Rabi, Olawepo, Adewunmi, Ottun, & Akinola 2014). The health effects of rape on survivors are often quite debilitating, and these effects can persist without proper treatment and support. Most survivors of rape do not seek appropriate health services, including medical examination, counselling, and other forms of help that are essential for prevention and control (WHO, 2010).

The immediate psychological reactions are shock, shame, guilt and anger. In contrast, the long-term psychological outcome include depression, post-traumatic stress disorder, suicidal ideation, lack of sexual enjoyment, fear, shame, and humiliation (Akinlusi, Rabi, Olawepo, Adewunmi, Ottun, & Akinola, 2014). A recent systematic review by Akinlusi, Rabi, Olawepo, Adewunmi, Ottun and Akinola (2014) found that women who non-partners have sexually assaulted are 2.3 times more likely to use alcohol and 2.6 times more likely to experience depression or anxiety while those abused by partners are 1.5 times more likely to have a sexually transmitted disease, including HIV. Many survivors of rape sometimes experience repeated episodes of rape (Tjaden & Thoennes, 2006). The cumulative effects of repeated rape experiences may compromise survivors' health and well-being. Rapists, even if not apprehended by law enforcement agencies, are constantly hounded by the memory of the evil perpetrated on their victims (Chiazor, Ozoya, Udume, & Egharevba, 2016).

Other consequences suffered by the rapist ranging from incarceration if convicted to poor health, guilt and condemnation, social stigma, bad criminal record, sexually transmitted diseases and several others.

Despite the legal provisions of life imprisonment with or without canning for sexual assaulters in Nigeria, the high prevalence of rape in Nigeria, and Cross River State, in particular, may not be unconnected with the fact that most cases of rape are underreported and hardly disclosed by the survivors out of fear of stigmatisation. Other complex and multi-faceted reasons for non-reporting are rejection by society, safety concerns, an enduring culture of male dominance, and the fact that even for cases reported, the perpetrators are rarely prosecuted, female social and economic disempowerment, and victim relationship to perpetrator. Similarly, Ezugwu, Ohayi, Iyoke, and Nnaji (2017) posit that most rape victims do not disclose or report the incidents because of factors such as avoidance of stigmatisation, the family may wish to keep it secret, especially when the perpetrator is a family member. Also, despite the severe penalty of life imprisonment for rape in Nigeria, perpetrators are hardly prosecuted, which may discourage victims from reporting. According to Geidan et al. (2010), Ogunwale et al. (2012), in Nigerian many rape survivors rarely seek medical care, legal redress, and psychosocial help. Ezechi, Musa, David, Wapmuk, Gbajabiamila, Idigbe, Ezeobi, Ohihoin, Ujah (2016) revealed that one in every five women is a victim of rape, and globally, 35% of women are rape victim with Africa, the Middle East and Southeast Asia reporting the highest incidence of rape. The reported figures are inaccurate and often underestimated as most cases of rape



are under-reported by the victims because of the associated stigma. In Nigeria, only 2 of 40 cases of rape are reported, attributing this amongst other reasons, to the complex legal requirements needed to prove the cases and the associated stigma (Ezechi, Musa, David, Wapmuk, Gbajabiamila, Idigbe, Ezeobi, Ohihoin, & Ujah, 2016).

Olatunji (2012) conducted an extensive review of the Nigerian anti-rape law and identified shortcomings in the provisions, making rape prevention challenging in the country. According to the law, rape can only be committed by a man to a woman, and it involves just penal and vaginal sex. The law does not acknowledge male rape victims, nor does it recognise anal sex as part of rape. Second, a victim of rape needs to establish that penetration occurred, corroboration (or validation) of the crime needs to be found, and proof must be provided that consent was not given. The limitations with establishing consent make proving many of the few valid rape cases difficult. Overall, the low prospect of receiving legal judgment for rape stifles enthusiasm in disclosing and seeking legal recourse.

Several literatures have discussed the subject of rape, the socio-psychological, socio-cultural and health implications of rape, the prevalence of rape and the characteristic of survivors of rape, and the features of the perpetrators of rape. However, there are limited studies on the socio-cultural factors influencing disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State, Nigeria. Understanding and dealing with the psychosocial and cultural factors influencing disclosure and

help-seeking behaviour of rape victims could assist rape survivors in opening up, consequently providing accurate and adequate statistics required in fashioning out strategies toward the prevention of rape. More so, the increasing incident of rape and low reporting practises among victims and survivors underscore the need for this study. Thus, this study was conducted to determine psychosocial and cultural variables influencing disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State, Nigeria.

## 1.2 Statement of the problem

The issue of rape is an everyday occurrence affecting almost a billion women and children in their lifetime. According to United Nations women (2020), 35 per cent of women have experienced one form of sexual intimate partner abuse. This figure equates to one in every three women who have experienced rape. Women aged 16 and 19 are four times more likely to be raped or sexually abused with female college students aged 18 and 24 are three times likely to suffer rape or other sexual assaults (Kamdar, Kosamuya, Chavada, Varma & Kadia, 2017; Stemple & Mayer, 2014) people who are transgender are twice more likely to be rape(Graham, Biemat & Bcher, 2019). South Africa holds the record for being the nation with the highest rape cases, with a rate of 132.4 rape cases per 1000,100 persons (UN Women, 2020).In the United States, 10 per cent cases of rape cases are committed by someone known to the victim (Wetch & Mason, 2017).

In Nigeria, more than 30 per cent have experienced one form of social violence or another (WARIF,2020). Findings from a National survey carried out

in 2014 revealed that one in four females reported experiencing sexual violence, with 10 per cent reporting one rape incidence of rape (Folayam, Odetoymbo, Harrison & Brown, 2014). Rape has severe, acute, and chronic psychological, sexual, and reproductive impact on survivors' well-being. In the immediate aftermath of a sexual assault, the survivor may report various psychological responses, including acute stress reactions, emotional detachment, and sleep disturbances. Other adverse emotional and psychological consequences include self-blame, difficulties in social and work adjustment and sexual functioning, fear, anxiety, depression, and PTSD (Suprakash, Ajay, Murthy & Biswajit, 2017). Although every rape survivor is unique, many will have one thing in common: Rape Trauma Syndrome (RTS). RTS is a cluster of emotional responses to the extreme stress experienced and profound fear of death experienced by the survivor during the sexual assault. Most significantly, perhaps, rape can have devastating long-term psychological effects, influencing and radically altering a person's entire life course. Some individuals may experience difficulties in functioning at work, home or school. Phobias, such as fear of crowds or a fear of being alone, may begin to appear depending on where the rape took place. Sexual dysfunction or changes in a person's sex life are prevalent. Some of the sexual problems women often encounter after rape are sexual aversion, flashbacks of the rape during sex, vaginismus, and orgasmic dysfunction.

Rape survivors in Cross River state suffer a range of physical injuries, genital and non-genital, or in extreme cases, death. The most common forms of

genital injuries are tears, ecchymosis (i.e., bruising), abrasions, redness and swelling. Non-genital physical injuries usually include bruises and contusions, lacerations, ligature marks to ankles, wrists and neck, pattern injuries (i.e. handprints, finger marks, belt marks, bite marks) anal or rectal trauma. Besides, rape victims in the study area are exposed to the risk of sexually transmitted infection (STI), including HIV, pelvic pain and pelvic inflammatory disease, unwanted pregnancy, urinary tract infections, unsafe abortion, and infertility. The health consequences of rape are severe, numerous and varied, and include physical and psychological effects, both in the short-term and long-term. Rape victims frequently experience symptoms of post-traumatic stress disorder (PTSD). PTSD appears to be more common in persons threatened with a weapon and extreme physical force, in those raped by strangers, and in cases where the rapist inflicted physical injuries. Symptoms of PTSD may manifest as intrusions and avoidance. Rape is alarmingly common in our society, demanding a focused and coordinated response among researchers, the justice system, and health and social service providers. Thus, this study was conducted to determine if stigmatisation, victim relationship to perpetrator, attitude of law enforcement agent and cultural beliefs influence disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria. The following research questions were put forward to this study:

- (i) Does stigmatisation significantly influence disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State?

- (ii) Is the victim relationship to perpetrator significantly influence disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State?
- (iii) Does law enforcement agent's attitude significantly influence disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State?
- (iv) To what extent do cultural beliefs significantly influence disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State?

### 1.3 Objectives of the study

The study's general objective was to examine psychosocial and cultural variables influencing disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State, Nigeria. The specific objectives are to:

- (i) Determine the extent to which stigmatisation significantly influence disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State
- (ii) Establish the extent to which victim relationship to perpetrator significantly influences disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State
- (iii) Investigate how attitude of law enforcement agent significantly influence disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State

- (iv) Examine whether cultural belief significantly influences disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State.

#### 1.4 **Research hypotheses**

Four research hypotheses were raised. They are:

- (i) Stigmatisation does not significantly influence the disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State.
- (ii) Victim relationship with the perpetrator does not significantly influence the disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State.
- (iii) The attitude of law enforcement agent does not significantly influence disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State.
- (iv) Cultural beliefs have no significant influence on disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State.

#### 1.5 **Significance of the study**

The findings of this study will have both theoretical and practical significance. Theoretically, the study would add to existing knowledge on psychosocial and cultural factors influencing disclosure and help-seeking behaviour of rape victims. Further researchers may find these research questions and hypotheses as guide to their study. Also, this study's literature might help

develop an appropriate framework and theoretical approach to studying factors affecting disclosure and help-seeking behaviour of rape victims. For researchers, the study will help uncover factors affecting disclosure and help-seeking behaviour of rape victims that previous research could not explore; thus, contributing to the existing knowledge in this field of study. This study's findings will contribute immensely to the area of Sociology, Public Administration, Nursing, Public health, and Social work. It will serve as a reference material to students and practice social workers in health-related interventions. The study attempts to draw together insights on how the humanities, the social and behavioural sciences could explain with concert evidence socio-cultural factors influencing disclosure and help-seeking behaviour of rape victims.

Furthermore, it attempts to apply these insights to the tasks of informing rape victims of the need to open up and seek help for quick recovery. The senses will also discourage perpetrators and potential perpetrators from engaging in this risky sexual behaviour that could expose them to various health challenges. Again, it provides the framework for determining the best method of socially managing the problem of rape and attendant consequences on victims and their family members. This work will equally be significant in highlighting whether there are discriminatory practices against rape victims, issues of sexual exploitation, and the implications on their work-life.

Practically, the study will help maximise health professionals' effort, law enforcement agents, and NGOs in improving the health conditions, awareness, and protection of rape victims. This work will help policymakers involved in

formulating health policies, law enforcement agents engaged in the defence of rape victims, and the prosecution of rapists in Cross River State and throughout the country. Also, the information provided by this work will make the government and other health institutions to pay attention to some of the issues raised about challenges faced by rape victims and take appropriate immediate measure(s) toward addressing them. The findings will also help formulate policies and programs to improve the general health status of rape victims in Nigeria. More so, the study will afford rape victims with the technical know-how to handle the issue of rape, regain their self-esteem and have coordinated and progressive reproductive health.

#### **1.6 Scope of the study**

This study's objective is to examine Psychosocial and cultural variables influencing disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State, Nigeria. The study's content scope will be restricted to psychosocial and cultural variables such as stigmatisation, victim relationship to perpetrator, attitude of law enforcement agent, cultural practices, and disclosure and help-seeking behaviour of rape victims. The study covered four Local Governments Areas in the Central Senatorial District of Cross River State, Nigeria. The four Local Government Areas selected for this study are Abi, Yakuur, Obubra, and Ikom.

#### **1.7 Operational definition of terms**

Operational definitions of the following concepts are provided below:



- (i) Socio-cultural: This refers to a set of beliefs, customs, practices, and behaviour within a people, which influences their decision to report or seek help when they suffer sexual assault.
- (ii) Disclosure: This refers to the ability of rape victims to expose or open up on unauthorised sexual intercourse to the public or relevant law enforcement agencies
- (iii) Help-seeking: This connotes an adaptive coping strategy adopted by rape victim that attempt to obtain external assistance to deal with the psychosocial effect of rape.
- (iv) Behaviour: This refers to the ways rape victims acts or conducts themselves, especially as it regards disclosure and help-seeking.
- (v) Rape: This refers to any form of sexual intercourse without free mutual consent between the rapist and the raped.
- (vi) Stigmatisation: This connotes the shame or disgrace rape victims suffer from those that perceive the act as being socially unacceptable.
- (vii) Victim relationship to perpetrator: This refers to the closeness between the rape victim and the rapist.
- (viii) Attitude of law enforcement agent: This refers to a settled way of thinking or feeling the police and other government agencies exhibits towards rape victim
- (ix) Cultural belief: this refers to the totality of socially transmitted behavioural patterns that influences disclosure and help-seeking behaviour of rape victims.

## CHAPTER TWO

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.1 Literature review

##### 2.1.1 Stigmatization/disclosure and help-seeking behaviour of rape victims

Rape-related stigma exists worldwide, although it manifests differently across countries, communities, religious groups and individuals. Rape is a pervasive problem and a violation of human rights that crosses geographic, cultural, religious, and economic lines, affecting millions of women every year (Klugman, Hanmer, Twigg, Hasan, McCleary-Sills, & Santa-Maria, 2014). Such violence has profound consequences on survivors' wellbeing by negatively affecting physical and mental health, curtailing mobility, and decreasing productivity. Fear of stigma, experiences of stigma in healthcare settings and acts of discrimination were recurring issues affecting the disclosure and health seeking behaviours of rape victims, especially for those on drugs (Churcher, 2013). Stigmatization from the disease profoundly degrades the person's personality from a whole to an ordinary and finally stigmatized human being. Therefore, this person loses social status and gets labels. Stigma is created within the society and attached to cultural, social, spatial and historical factors. Health-related stigma is a social process, which appears as isolation, rejection, blame or devaluation (Saki, Kermanshahi, Mohammadi, & Mohraz, 2015). It occurs when the person is treated unequally and unfairly. Fear of stigma are global occurrences, which seriously influences disclosure and help-seeking behaviour of rape victim. The negative consequences of rape stigma may force survivors to delay or refuse disclosure and seek help after the rape incident.

The fear of stigmatization causes denial, secrecy, depression, and shame. Many rape victims suffer from stigma, prejudice, and discrimination in their daily lives. This pushes them to society's margins, where poverty and fear make disclosure and help-seeking difficult for rape victims. The disclosure of rape incident, in most cases, leave the person with the feelings of shame and self-suspicion. Therefore, rape survivors who fear the disclosure of their status because of stigma and discrimination are willing to hide their status. They think disclosing their status may create a complicated and stressful situation, but it also causes them to lose family support and health care provision (Saki, Kermanshahi, Mohammadi, & Mohraz, 2015). Rape stigma and discrimination have a crucial impact on the life of rape survivors and can be an essential barrier for disclosure and help-seeking. The feeling of shame, fear, and embarrassment was the barrier to the reluctance to seek risky people and their stigma. This can delay the treatment and cause many troubles for patients and their families (Saki, Kermanshahi, Mohammadi, & Mohraz, 2015). UNAIDS and the World Health Organization (WHO) cite fear of stigma and discrimination as the main reason people are reluctant to disclose and seek help. Self-stigma, or internalized stigma, has an equally damaging effect on the mental wellbeing of rape victims. This fear of discrimination breaks down confidence to seek help and medical care. Self-stigma and fear of an adverse community reaction can hinder efforts to address the rape epidemic by continuing the wall of silence and shame surrounding the problem.

Negative self-judgement resulting in shame, worthlessness, and blame represents an important but neglected aspect of living with rape. Self-stigma affected a person's ability to live positively, limits meaningful self-agency, quality of life, help-seeking behaviour, disclosure, adherence to treatment and access to health services. Community-level stigma and discrimination towards rape victims can force people to leave their home and change their daily activities. In many contexts, women and girls often fear stigma and rejection from their families, not only because they stand to lose their social place of belonging but also because they could lose their shelter, children, and ability to survive. The isolation that stigma brings can lead to low self-esteem, depression, and even thoughts or acts of suicide. The International Center for Research on Women (ICRW) reports that in Bangladesh, more than half of women who are rape victims have experienced stigma from a friend or neighbour, and one in five feel suicidal. In the Dominican Republic, six out of ten women who are rape victims fear being the subject of gossip, while in Ethiopia, more than half of all women who are rape victims report having low self-esteem.

McCleary-Sillsa, Namyia, Nyonid, Rweyemamud, Salvatoryd, and Stevene (2015) conducted a study on stigma, shame and women's limited agency help-seeking for intimate partner violence in Tanzania. The study explored the social and structural barriers that render Tanzanian women unable to exercise agency in this critical domain of their lives. Data were collected through 104 key informant interviews with duty bearers and participatory focus groups with 96 male and female community members in three Tanzania regions. The findings

revealed numerous socio-cultural barriers to help-seeking, including gendered social norms that accept IPV and impose stigma and shame upon survivors. Because IPV is highly normalized, survivors are silenced by their fear of social consequences, a suspicion reinforced by the belief that women's reporting of IPV brings shame rather than the perpetration of violence itself. Barriers to help-seeking curtail women's agency. Even women who reject IPV as a 'normal' practice are blocked from action by powerful social norms. These constraints deny survivors the support, services, and justice they deserve and perpetuate low reporting and inaccurate IPV prevalence estimates.

Taddese, Sibhatu, Kebede, and Horacio (2013), carried out a study to assess the experience of stigma and discrimination on the psycho-social and health care seeking behaviour of people living with HIV/AIDS (PLHIV) in Arba Minch, Ethiopia. The study used qualitative methods involving focus-group discussions and in-depth interviews conducted in Arba Minch town and nearby Kebeles. Our sample consisted of PLHIV and other key informants who were purposively selected. Data were analyzed manually using a thematic content analysis framework. It appears that the magnitude of stigma and discrimination in the area has decreased to a considerably lower level. However, the problem's severity is still being influenced by various factors, including current residence, disclosure status, and community awareness about HIV/AIDS. Stigma and discrimination have come to a level that can be tolerated by most PLHIV that live in this region, especially those who have disclosed their HIV status and were living in urban areas.

Rife (2009) conducted a study on sexual assault, perceived stigma, and Christian fundamentalism. The study investigated the lack of support seeking in the context of stigma. It is hypothesized that sexual assault victims who perceive themselves as stigmatized (due to their status as a sexual assault victim) will be less likely to seek support than those who do not perceive themselves as stigmatized. It is also hypothesized that Christian fundamentalism will play a role in the stigmatization of sexual assault victims, with higher degrees of fundamentalism being associated with a greater likelihood of self-perceptions of stigmatization among sexual assault victims. Data for the study were drawn from an extensive, existing online survey that assessed the prevalence of various types of violence, including sexual experiences, abuse, and psycho-social outcomes, including support seeking and perceptions of stigma. Participants in this study were undergraduate students at East Tennessee State University who were 18 years of age or older (N=730). Ages ranged from 18 to 50, with a mean of 23.4 (SD=8.0). A large majority of participants were single (74.3%), the remainder indicating that they were married (10%), separated or divorced (10%), or cohabitating (5.7%). Results suggest a relationship between perceived stigma and specific support sources (clergy, parents, and other relatives), but this relationship is positive. The hypothesized relationship between Christian fundamentalism and perceived stigma was partially supported.

Ogunwale and Oshiname (2015) conducted a qualitative study designed to explore DR female survivors' physical and psycho-social experiences at the University of Ibadan. The research was qualitative and involved eight consenting

DR survivors. A pre-tested In-Depth Interview (IDI) guide that included questions relating to survivors' personal profile, context of DR experienced, factors that promoted survivors' vulnerability, reported adverse health ces, help-seeking behaviour, and effects of the rape episode on dating relationship was used to facilitate the conduct of the narrative interview. The interviews were conducted following the protocol approved by the Joint University of Ibadan and University College Hospital Ethics Review Committee and were taped-recorded and subjected to content analysis. Participants' mean age was  $17.3 \pm 2.3$  years. All participants were teenagers when they were first raped. Coercive and deceptive means were used to perpetuate the act of rape. Participants' use of verbal appeals, crying, and physical resistance to prevent being raped proved abortive. The experienced adverse physical health consequences included vaginal bleeding and injury. The experienced DR's significant psycho-social effects had self-blame, depression, hatred for men, and suicidal feelings. DR experiences occurred mainly in isolated settings, and most participants could not seek medical help and other forms of care due to fear of being stigmatized. Some of the DR survivors continued their dating relationships when the perpetrators tendered apologies. DR survivors, however, rarely seek help as a result of the fear of being stigmatized. The study recommended that multiple behaviour change interventions are needed to address the phenomenon.

### **2.1.2 Victim relationship to perpetrator, disclosure and help-seeking behaviour of rape victims**

The victim relationship to perpetrator is used here to be maximally inclusive of any individual who is biologically or non-biologically related and

close to the rape victim. This includes friends who are dating or in courtship, immediate family member such as father, uncle or aunty, etc. Relationships in which two people have children in common but are no longer formally romantically or sexually involved with one another and marital associations. Ideally, such relationships by closely related biologically or non-biologically relatives are loving and supportive, protective of and safe for family members. Unfortunately, while fulfilling these nurturing, positive needs of their association at least some of the time and at least early in their relationship's development, some people also behave abusively, causing their victims (and often others as well) substantial emotional and physical pain and injury. In extreme cases, abusive behaviour ends in the death of one or both individuals and, sometimes, other people as well. A perpetrator can have any relationship with a victim, including the role of an intimate partner. Rape by close family members is far more prevalent than many people realize. Survivors of such abuse often describe rape perpetrated by an immediate family member as the most traumatic and humiliating aspect of abuse.

Mont, Woldeyohannes, Macdonald, Kosa, and Turner (2017) carried out a comparative study on intimate partner and other sexual assault survivors' use of different types of specialized hospital-based violence services. They argued that little is known about the health service utilization of women sexually assaulted by their intimate partners than those sexually assaulted by other perpetrators. The study's specific focus was on the use of acute care services, post-victimization, and a broad range of survivor and assault characteristics



across women assaulted by current or former intimate partners, other known assailants, and strangers. Data were collected from individuals presenting to 30 hospital-based sexual assault and domestic violence treatment centres using a standardized data collection form. The data were generated from one hundred and nineteen (119) women, ages 16 years and above, sexually assaulted by one assailant. The findings of the study show that women sexually assaulted by a current or former intimate partner were less likely than those attacked by another known assailant or a stranger to have been administered emergency contraception ( $p < 0.001$ ) or prophylaxis for sexually transmitted infections ( $p < 0.001$ ), and counselled for potential use of HIV post-exposure prophylaxis ( $p < 0.001$ ). However, these women were more likely than those in the other two groups to have had their injuries documented with photographs ( $p < 0.001$ ), have undergone a risk assessment ( $p = 0.008$ ), and have engaged in safety planning ( $p < 0.001$ ). The study concluded that women sexually assaulted by current or former intimate partners utilized services offered by sexual assault and domestic violence treatment centres differently than those attacked by other known assailants and strangers.

Edinand Nilsson (2013) *between desire and rape – narratives about being intimate partners and becoming pregnant in a violent relationship*: Women subjected to intimate partner violence (IPV) experience different forms of abuse. Sexual violence is often under-reported because physically abused women, in particular, might see forced sex as an obligatory part of the sexual interplay. Accordingly, abused women have less sexual autonomy and unplanned

experience pregnancies more often than other women. To describe and analyze nine Swedish women's retrospective stories about IPV, focusing on power and coping strategies as intimate partners, particularly regarding experiences of sex, contraception, and becoming pregnant. Nine qualitative interviews were carried out with women who had been subjected to very severe violence in their intimate relationships and during at least one pregnancy. The stories were analyzed using the 'Narrative method' to emphasize the women's lived experiences. Despite the violence and many contradictory and ambivalent feelings, two of the women described having sex as desirable, reciprocal, and respite from the rest of the relationship. The other seven women gave a negative and different picture. They viewed sex either as obligatory or as a necessity to prevent or soothe aggression or referred to it as rape and as something that was physically forced upon them. The women's descriptions of their pregnancies ranged from being carefully planned and mostly wanted to entirely unwelcome and including flawed contraceptive efforts with subsequent abortions. Conclusions: Women subjected to IPV have diverse and complex experiences that affect all parts of the relationship. Intimacy might, for some, turn into force and rape, but for others, sex does not necessarily exclude pleasure and desire. It can be a haven of rest from an otherwise violent relationship. Accordingly, women may tell stories that differ from the ones expected as 'the typical abuse story'. This complexity needs to be recognized and dealt with when women seek healthcare, especially contraceptives, abortions, and pregnancies.

White, McMullin, Swartout, Sechrist, and Gollehon (2008) studied violence in intimate relationships: A conceptual and empirical examination of sexual and physical aggression. The present paper argues that the perpetration of sexual and physical attack by the same person in intimate relationships represents a unique form of intimate partner violence that warrants further theoretical and empirical examination. This paper also provides preliminary empirical evidence demonstrating that men who dual perpetrate represent a distinct group. Dual perpetration is defined as the commission of both sexual and physical aggression by the same person, although not necessarily on the same occasion nor directed toward the same target. The paper is divided into two parts. Part one reviews the correlates of sexual and physical partner aggression identified in past research. These include childhood experiences with family violence and abuse and attitudinal, personality, behavioural and relationship characteristics. Part two reports on an empirical study that examines the similarities and differences between men who commit only physical aggression, only sexual aggression and both forms of attack (dual perpetration). The paper concludes with a call to integrate research on sexual and physical partner aggression.

Jaffe, Steel, DiLillo, Messman-Moore, and Gratz, (2017) characterizing sexual violence in intimate relationships: an examination of blame attributions and rape acknowledgement. Rape by an intimate partner frequently involves a precedence of sexual consent between victim and perpetrator, often does not include the use of physical force, and may not fit societal definitions of rape. Given these unique characteristics, women with intimate partner assaults may be

2. **Using emotional abuse:** An abuser may demean and belittle their victim to gain control by making them feel worthless, embarrassed, and helpless. Examples may include making comments on their victim's weight, appearance, or intelligence. This can often occur in public places and social settings.
3. **Using isolation:** An abuser uses this tactic to control the victim by isolating them from friends and family. An abuser may claim to be disliked by their victim's friends and family and use this as a reason for not letting their victim associate with them. Often abusers will withhold phone calls and messages from family members and friends as a form of isolation. An abuser will generally attempt to gain control by cutting off supportive figures in the victim's life.
4. **Minimizing, denying, blaming-** An abuser employs this tactic to rationalize their actions, make the victim feel like they are to blame for the abuse, reduce the impact of their actions, and pretend that their behaviour is not abusive. An abuser might claim that their victim is "too sensitive" or that an abuse incident was simply a "misunderstanding." They may also blame the victim for the abuse and attempt to justify an incident by blaming it on the victim's actions and making their victim responsible.
5. **Using male privilege:** A male or masculine-identified abuser will often find ways to gain power and control by exploiting the male honour bestowed upon him by a male-dominated society. They may do this by

less likely to acknowledge the experience as rape. In turn, they might make fewer blame attributions toward themselves and their perpetrators than victims of rape by a non-partner. Consistent with these expectations, results from 208 community women reporting rape in adulthood revealed the presence of indirect effects of perpetrator type (non-partner vs intimate partner) on both behavioural self-blame and perpetrator blame through rape acknowledgement, even when controlling for both victim substance use at the time of the assault and coercion severity. Compared with women who experienced a rape by a non-partner, women who experienced rape in the context of a marital or dating relationship were less likely to blame themselves or the perpetrator for the assault, in part because they were less likely to label their experience as rape. Overall, these findings highlight the unique nature of intimate partner rape and provide further information about the relatively under-researched area of sexual violence in close relationships.

The Centers for Disease Control and Prevention (CDC) (2010) listed the following strategy that can be used by a close family member who is an abuser or perpetrator to gain power and control over their victim. No tactic is less important or impactful than any other.

1. **Using intimidation:** An abuser may use threats of physical violence or even subtler tactics, such as the invasion of personal space, displays of physical size and strength, or particular looks, gestures, or other body languages to intimidate and thereby gain control over their partner.

enforcing rigid gender roles, treating the victim like a servant or a sex object, or making all decisions, whether personal, financial or otherwise.

6. **Using economic abuse:** An abuser may prevent their victim from obtaining a job or interfere with their work and jeopardize employment to maintain the victim's financial dependency on them, thus potentially making it difficult for the victim to leave. An abuser may have sole control over the victim finances or give them an "allowance".
7. **Using coercion and threats:** An abuser may use this tactic to stop the victim from leaving the relationship or facilitating sexual abuse. For example, the abuser may start throwing things, threaten to kill the victim, or injure their friends or family. The abuser may also threaten to commit suicide if their victim leaves them, attempting to make their victim so guilty that they decide to stay. These are all methods of gaining power and control used by perpetrators closely related to the family of the rape victim.

### 2.1.3 **Attitude of law enforcement agent and disclosure and help-seeking behaviour of rape victims**

Researchers have long noted that law enforcement officers play a crucial role in a rape victim's interaction with the criminal justice system (Du Mont, Miller, & Myhr, 2003). If a victim wants to pursue legal action against the perpetrator, they must report the attack to law enforcement. Law enforcement describes the individuals and agencies responsible for enforcing laws and maintaining public order and public safety. Law enforcement includes the prevention, detection, and investigation of crime and the apprehension and

detention of individuals suspected of law violation. Law enforcement officers also act as the critical determinant in whether a case results in prosecution because they decide whether the rape claim is founded (Kerstetter, 1990). Because law enforcement officers possess so much power in determining whether probable cause exists to arrest a perpetrator, researchers have sought to learn more about officers' attitudes toward rape and rape victims; doing so, they believe, may uncover how officers' attitudes affect disclosure help-seeking behaviour of victims. Prior research has demonstrated that law enforcement officers often hold negative attitudes and beliefs about rape victims; these attitudes include victim-blaming sentiments, which may cause the secondary victim traumatization (Campbell & Johnson, 1997). Research demonstrates that the reporting process is fraught with risk for the victim (Rich & Seffrin, 2012) and is potentially harmful because officers can cause secondary traumatization with "victim-blaming attitudes, behaviours, and practices" (Campbell, Wasco, Ahrens, Sefl, & Barnes, 2001).

If a victim experiences harsh treatment from law enforcement when attempting to file a report, he or she may also experience secondary traumatization and have long-term negative consequences (Campbell, 2006). Such consequences include the victim's feelings of self-blame, shame, and self-doubt (Campbell et al., 2001). Researchers and feminist commentators have long noted that rape victims often receive adverse treatment from law enforcement officers. Some officers doubt victims who do not meet the criteria of an "ideal victim" because they might have worn revealing clothing or been intoxicated

when the rape occurred (Sleath & Bull, 2012). Such attitudes were researched by Schuller and Steward (2000), who found that law enforcement officers viewed intoxicated complainants more negatively than non-intoxicated complainants. Officers' scepticism of victims who do not meet the ideal victim criteria because of the victim's history or behaviour may lead to additional interrogation and prodding of victims by law enforcement (Page, 2007). This further interrogation causes victims to feel revictimized, as though they did something wrong or are under attack (Jordan, 2004).

Women's lobbying groups sought to reform outdated rape laws in the 1970s because of the prevalence of secondary victimization and the use of an officer's judgments against victims. These reforms attempted to shift the definition of rape from the victim's behaviour to the perpetrator's behaviour (Horney & Spohn, 1991). In shifting the focus from victim to perpetrator, these activists endeavoured to eliminate victim-blaming from rape law and, by extension, law enforcement officers' perceptions. Reformers assumed that with this change in rape law, law enforcement officers would similarly alter how they worked with rape victims and their own personal perceptions of rape (Horney & Spohn, 1991). Sexual assault, including rape globally are being investigated poorly or not at all, leaving many victim feelings betrayed by a system that supposed to protect them. In Nigeria, police departments assign too few officers with too little training to investigate rapes. High turnover, thin staffing, and inadequate training plague police departments' investigations of rapes and other sexual assaults. Rape victims actuates say they are not surprised. Law



enforcement agencies are over, is entrained help explain why so few rapists in Minnesota victim's punished. Stubborn and Corris supposed myths about rape, they say, shadow many investigations. But research by law enforcement groups confirms the value of training. When officers have specialized training in sex crimes, victims are less likely to drop out of investigations, and prosecutors are more likely to file charges, according to the Police Executive Research Forum, the profession's leading policy arm. Sex crimes have not historically been a priority within the police department.

Richard Seffrin (2012) studied police interviews of sexual assault reporters United States. The study revealed that sexual assault is underreported in the United States. Survivors are often reluctant to make police reports for various reasons; they fear revictimization by criminal justice professionals. Conversely, police officers often lack skills for interviewing crime victims. Post-traumatic stress reactions among victims can exacerbate the problem. Although some victims prefer female interviewers, it is not known whether they are more skilled. A sample of 429 police officers completed a written survey testing their rape myth acceptance and knowledge of how to interview rape reporters. A significant relationship between rape myth acceptance and interviewing skill was discovered. Although officer gender was related to interviewing talent, the effect was mediated by rape myth acceptance. Specific officer behaviours related to high rape myth acceptance were identified. Implications for the selection of police to conduct victim interviews were discussed in this study.

Mennicke, Anderson, Oehme, and Kennedy, (2014). Conducted a study on law enforcement officers' perception of rape and rape victims. The study was aimed at assessing law enforcement officers' perceptions of rape and rape victims. The study adopted a cross-sectional survey research design. One hundred and forty-nine (149) respondents were selected among law enforcement officers to respond to surveys, including a definition of rape measure, an unfounded rape claims measure, and the Rape Myth Acceptance Scale-Revised (RMA-R) measure. Although most officers scored low on the RMA-R—indicating that they did not adhere to myths about rape, most officers also responded with incomplete definitions of rape and inaccurate estimates of the number of false rape claims. Multivariate analyses indicated that officers' open-ended responses did not predict their scores on the RMA-R scale. It is argued that the RMA-R alone does not accurately measure officers' understanding of rape. Officers need ongoing training on the legal elements of the crime, the necessity of sensitivity with victims, and research-based statistics on the prevalence of rape.

Campbell (2006) research on rape survivors' experiences with the legal and medical systems in America adopted a naturalistic quasi-experimental design to examine whether rape survivors who had the assistance of rape victim advocates had more positive experiences with the legal and medical systems compared to those who did not work with advocates. The qualitative study sampled eighty-one survivors interviewed in two urban hospitals about what services they received from legal and medical system personnel and how they

were treated during these interactions. Survivors who had the assistance of an advocate were significantly more likely to have police reports taken and were less likely to be treated negatively by police officers. These women also reported less distress after their contact with the legal system. Similarly, survivors who worked with an advocate during their emergency department care received more medical services, including emergency contraception and sexually transmitted disease prophylaxis, reported significantly fewer negative interpersonal interactions with medical system personnel, and reported less distress from their medical contact experiences.

Alderden and Ullman (2014) study gender difference or Indifference: detective decision making in sexual assault cases sought to examine whether gender differences exist in detectives' arrest decisions in sexual assault cases. Victims, suspects, incidents, and detective characteristics were collected from police cases, and investigatory files on 328 criminal sexual assault cases involving adult female victims were reported to a large Midwestern police department in 2003. Logistic regression was used to determine whether detective gender predicted the odds of arrest after controlling for incident, victim, and suspect characteristics. It is hypothesized that cases involving female detectives would be more likely to result in arrest after controlling for other ventures, victim, and suspect factors. However, contrary to expectations, female detectives are significantly less likely than male detectives to arrest suspects in sexual assault cases even after controlling for the influence of other factors shown to

predict arrest. The findings support prior research that suggests female practitioners may not necessarily be more sensitive toward female victims.

Clay-warner and Burt (2014) studied rape reporting after reforms. The study used data from the National Violence Against Women Survey. The authors examine whether rapes committed after reforms were more likely to be reported to police than those committed before reforms. The authors also consider whether the gap between the reporting of simple versus aggravated rape has narrowed. They find that rapes committed after 1990 were more likely to be reported than rapes occurring before 1974. Aggravated rape continues to be more likely to be reported than simple rape, however, and this effect is stable over time. The study concludes by discussing the implications of these findings for evaluating the success of rape reform statutes. Du Mont, Miller, and Myhr (2003) carried out a study on the role of "real rape" and "real victim" stereotypes in police reporting practices of sexually assaulted women in America. Some feminists have argued that rape myths constrain women's reporting of sexual assault to the police. The authors investigated whether myth-associated characteristics of sexual assaults play a role in police reporting behaviours of women. A sample of 186 sexual assault cases seen at a hospital-based sexual assault care centre in 1994 was analyzed using logistic regression. A positive association was found between reporting a sexual assault to the police and two overtly violent components of the "real rape" myth: the use of physical force and the occurrence of bodily injury.

Ahrens (2006) carried out a study on being silenced: The impact of adverse social reactions on the disclosure of rape. The study revealed that rape survivors who speak out about their assault experiences are often punished for doing so when subjected to adverse reactions from support providers like law enforcement agencies. These adverse reactions may thereby serve a silencing function, leading some rape survivors to stop talking about their experiences to anyone at all. The study examined this worst-case scenario, focusing on the qualitative narratives of eight rape survivors who initially disclosed the assault but then stopped disclosing for a significant period; this study sought to provide an in-depth description of how adverse reactions silenced these survivors. The study highlighted three routes to silence; one, adverse reactions from professionals led survivors to question whether future disclosures would be adequate; two, negative responses from friends and family reinforced feelings of self-blame; and three, negative reactions from either source reinforced uncertainty about whether their experiences qualified as rape.

Christiansen, Bak, and Elklit, (2017) study on secondary victims of rape revealed that rape is often a very traumatic experience, which affects not only the primary victim (PV) and his/her significant others. The study examined the impact of rape on 107 secondary victims, including family members, partners, and friends of male and female rape victims. The study revealed that many respondents found it challenging to support the PV and that their relationship with the PV was often affected by the assault. Furthermore, the sample showed significant levels of traumatization, and it was estimated that approximately one-

quarter of the respondents suffered from post-traumatic stress syndrome (PTSD). The degree of traumatization was associated with a more recent assault, higher efforts to support the PV, recurrent thoughts about preventing the assault, a lack of social support for the respondent, and feeling let down by others. The respondents were generally interested in friend, family, and partner-focused interventions, particularly in receiving education about how best to support a rape victim.

#### **2.1.4 Cultural belief and disclosure and help-seeking behaviour of rape victims**

Cultural belief can influence the disclosure and help-seeking behaviour of rape victims either positively or negatively. In societies with male-dominated sexual relationships and values, victims are less likely to report to avoid breaking traditional norms and stigmatization, while in cultures where punitive measures are enforced, the reporting is much improved (Ogunbode, Bello & Ogunbode, 2014). Culture, according to Macionis (2000), involves all that surrounds a person: beliefs, rules for behaviour, ideas of right and wrong and material objects; he views culture as the social heritage of a people, those learned patterns for thinking, feeling and acting that are transmitted from one generation to the next, including the quintessence of those patterns in physical objects. Erturk (2007) conceives culture as the 'set of shared spiritual, material, intellectual and emotional features of human experience created and constructed within social praxis.' Therefore, how an individual responds in the context of victimization is significantly influenced by the socio-cultural environment in which he/she has learned to live his/her daily life.

Cultural identities contain the histories of a people that include traditions, struggles, achievements, and triumphs. Cultures nourish pride, resilience, belonging, intersectional identities, and connection to community. Cultural beliefs are generally used to justify rape and inequality by evoking traditional beliefs and practices about how women and girls should be treated. There are several myths about sex that serve as an impetus to the growing incidents of rape in Nigeria. Okoro (2011), in his studies, revealed that it is a common cultural belief among many ethnic groups that: Without premarital sexual intercourse, boys are bound to have small testicles, suffer from pimples, have difficult erection and not be able to perform well when married. On the other hand, girls are bound to have small breasts, experience early menopause, painful menstruation, and sore nipples when breastfeeding their babies.

The culture of gender-based violence and misogyny devalues women, girls and normalizes or minimizes abuse; claims GBV is accidental; ignores sexism; promotes aggressive or even toxic masculinity; and uses men's achievements to pardon, excuse, and deny the impact of their behaviour. The cultures of ethnic and identity-specific communities prescribe and maintain traditional, patriarchal gender norms and roles; define 'transgressions' from these norms; patrol the boundaries of what they deem is and is not culturally acceptable, enforcing compliance by violence, coercion, pressure, rejection, or, as one gay survivor put it, "death by a thousand paper cuts."

Culture belief influences how rape is viewed: minimized by society as an accidental problem, used as a convenient explanation by communities, or linked

to stereotyping by systems. Rape victims are often perceived as facilitating their victimization through 'suggestive attitudes' and 'indecent dressing', even though there is no law regulating dressing in the country. Therefore, victims of rape or sexual assault are perceived as people of low moral virtues that must have led their assailants to the crime 'one way or the other'. Amaka-Okafor (2013) described this social perception of rape by Nigerians as 'a culture of rape'. She condemned the non-recognition of domestic rape (between husband and wife) by the nation's constitution as a factor that fuels the culture of rape in the country. This, by extension, account for the reason for low reporting of date rape as the public will roundly condemn the victim if she comes out to report being raped by her boyfriend. In this case, it has been reported that even the law enforcement agents makes mockery of such reports by victims as they often consider it inconceivable for a girl to report being raped by her boyfriend (Chiedu, 2013).

According to Sawyer, Thompson and Chicorelli (2002), those "individuals that subscribe to rape myth tend to believe that aggressors are not responsible for their actions and the victims are to blame for their predicament". Similarly, investigators of sexual assault have found that a substantial number of women who have been raped do not conceptualize their experiences as such (Ullman & Filipas, 2001; Paul and Hayes, 2002). This brings to the fore the issue of whether individuals can be traumatized by the experience of rape if they do not label the experience a victimization. Burkhart and Fromuth (1996) asserted that unchallenged rape myths perpetuate feelings of guilt, shame and self-blaming tendencies for victims.



## 2.2 Theoretical framework

### 2.2.1 The health belief model

The health belief model was developed by socio- psychologists such as Rosenstock and Kegels in the early 1950s in the United States Public Health Services. It was a theory devised to understand "the widespread failure of people to accept disease preventive or screening test for the early detection of asymptomatic diseases". The approach was later applied to patients' responses to symptoms and compliance with prescribed medical regimens. Based on its two variables, the value placed by an individual on a particular good and the individual's estimated likelihood that a given action can achieve that goal. The theory is based on the following;

**Perceive susceptibility:** Individuals here widely vary in their vulnerability to a condition like diagnosis and illness in general. This dimension is subjective to one's perception of the risk of contracting an infection.

**Perceived benefits:** This depends on the beliefs regarding the effectiveness of various actions in reducing the disease threat.

**Perceived severity:** This deals with the feelings concerning the seriousness of contracting an illness or leaving it untreated as it varies from person to person.

**Perceived barriers:** This is concern with the potential negative aspect of a particular health action that may impede undertaking the recommended behaviour. A kind of cost-benefit analysis is thought to occur wherein the individual weighs the effectiveness of the measures against the perception that it

may be expensive, dangerous (e.g. side effects), unpleasant (e.g. painful and challenging), inconvenient and time-consuming.

The theory is relevant to this study because it provides a framework for predicting and explaining the complex systems of socio-cultural factors influencing disclosure and help-seeking behaviour of rape victims and for promoting strategies to improving the wellbeing of rape victims. The HBM was identified as the ideal framework for the study as disclosing, and help-seeking behaviour of rape victims should be seen as a reflection of the individual learner and society's health belief system (HBS). The HBM also offers a comprehensive approach to the long-term treatment of rape victims. The Model (HBM), a well-tested, comprehensive social cognitive framework by Rosenstock and colleagues, was one of the first models used to predict and explain factors influencing disclosure and help-seeking behaviour of rape victims in the 1970s and 1980s. Yet, the HBM has seldom since been applied in other health-related issues. The major criticism against this model is the overemphasis of need at the expense of health beliefs and social structure. However, the model is only a social construct. This gives room for using the theory of general mechanics theory, routine activity theory, and Anderson behavioural model to determine socio-cultural factors influencing disclosure and help-seeking behaviour of rape victims.

### **2.2.2 Mechanic's general theory of help seeking behaviour**

David Mechanic developed the help-seeking behaviour theory in 1978. The approach emphasizes individual differences in help-seeking behaviours.

Mechanic (1978) notes that socialization, belief system, awareness level, and proximity play a significant role in help-seeking behaviours. It culturally defines what illness is and how it should be dealt with (e.g., negatively or positively). Mechanic (1978) highlighted some socio-cultural factors that influence disclosure and help-seeking behaviour of rape victim. They include:

1. Visibility, recognisability, or perceptual salience of symptoms or deviant signs
2. The extent to which the symptoms are perceived as serious
3. The extent to which symptoms disrupt family, work, and other social activities
4. The frequency of the appearance of symptoms, their persistence, or their frequency of recurrence
5. The tolerance threshold of those who are exposed to and evaluate the symptoms
6. Available information, knowledge, and cultural assumptions and understandings of the bodily changes
7. Basic needs which lead to autistic psychological processes –perceptual processes that distort reality
8. Needs competing with illness responses – competing demands and priorities
9. Competing (cognitive) interpretations that can be assigned to the symptoms once they are recognized

10. Availability of treatment resources, physical proximity, and psychological and monetary costs of taking action.

The theory is relevant to this study because it can be applied to different strands of illness behaviour. Such as what attitude rape survivors display, where they go for help, how they seek medical or non-medical help, how they manage acute and chronic conditions, why they use health services, constituted authorizes, and how they develop health beliefs and form illness perceptions. The theory explicitly explained that peoples' health behaviour shows their routine activities related to their healthy lifestyles that ultimately determine potential health threats and maintain their current health status. Relative to the phenomena of disclosing and help-seeking behaviour of rape victim. The criticism labelled against this theory is that, in seeking help, an individual want to disclose and seek help for a particular issue in his or her life, but how would the individual determine the right individual to consult.

### 2.2.3 Routine activity theory (RAT)

The routine activity theory (RAT) is an offshoot of Amos Hawley's theory (1950) of human ecology. The human ecology theory highlighted three fundamental aspects of collective human activities, namely: rhythm, tempo, and timing, which are approaches developed in analyzing people's lives within structural, social, and cultural contexts as well as the criminal lifestyle. Routine activities connote generalized patterns of social activities in a society (i.e., spatial and temporal patterns in family, work, and leisure activities). The fundamental idea is that the structure of routine activities in a social system determines what

kinds of situations emerge. Changes in a society's regular activities cause changes in the type of problems people confront. Essentially, the theory noted that people act in response to situations. Thus, the kinds of cases they encounter in their daily lives influence their crime involvement, and changes in people's exposure to conditions may lead to changes in their crime involvement. Routine activity theory links a macro-level structural model (spatial and temporal patterns of everyday activities in society) with a micro-level situational model that explains why a crime occurs.

Routine activity theory explains the criminal event through three essential elements that converge in space and time in the course of daily activities:

(i) Suitable target or victim: before the criminal incident is known as a target, but after the crime is committed, the person, object, or place attacked become a victim. According to Cullen and Wilcox (2010), the target may be a person, entity, or place. What exposes a person, object, or place to criminal attack is the degree of attractiveness or vulnerability. For example, a person becomes a suitable target when he/she appears physically weak or handicapped and unable to use self-defence. An object could become a convenient target when it looks like it is easy to grab and transport. The likelihood that a target will be more or less appropriate is depicted by the following acronyms VIVA (value, inertia, visibility, and access), CRAVED (Concealable, Removable, Available, Valuable, Enjoyable, Disposable), which defines its level of risk (Cohen & Felson, 1979; Felson & Clarke, 1998; Clarke, 1999).

(ii) Potential offender: Felson and Clarke (1998) noted that when an accessible and suitable target - person, object and place is not kept safe from harm or injury by an individual with the ability, fitness, or quality necessary to do so, there is a likelihood that a crime will occur. Cohen and Felson (1979) provided an explanation of corruption from an offender's perspective. Thus, for RAT, a crime will happen when a potential offender thinks that a target is appropriate, and a capable guardian is not present. It is their assessment of a situation that determines whether a crime will take place. Likely, offenders have many different reasons for committing offences. Even with the presence of a suitable target, a crime would not take place if a capable guardian is present, and a potential offender is absent. These suggest the relevance of a likely offender in perpetuating a criminal act.

(iii) The absence of effective guardians: Guardianship, according to Hollis-Peel, Reynald, Bavel, Elffers, and Welsh (2011), is defined as "the physical or symbolic presence of an individual (or group of individuals) that acts (either intentionally or unintentionally) to deter a potential criminal event". A capable guardian, whose presence would discourage a criminal from committing a crime, can be a person or a thing such as a friend, police, lighting, locks, or an alarm system, among others (Argun, & Dağlar, 2016).

Routine activity theory maintains that each of these three elements must be present for rape to take place. Rape can only be committed if a likely offender thinks that a target is suitable, and a capable guardian is absent. Cohen and Felson (1979) also referred to rape when noting that the interaction between

potential offenders who have appropriate targets in the absence of active guardians could result in the likelihood of rape. The theory explains how opportunities for rape arise through the day-to-day activities carried out by rape victims consciously and unconsciously. Most rape victims engage in different routines of activities such as walking alone in lonely places, dressing nude, wearing skimpy clothes, being in a companion of bad fellows, attending night meetings, and walking at night. All these create a situation in which rapists lose control of themselves for sexual gratification. These variations in routine socioeconomic activities of rape survivors determine the possibility of when and where rapists will attack such a rape victim. Like Cohen and Felson (1979), other scholars also argued that lifestyle differences associated with routine activities explain group differences in falling victim to rape (Hindelang, Gottfredson, & Garofalo, 1978). All things being equal, spending time on the street increases the likelihood that potential offenders and victims will cross paths and that a rape will occur due to such contact.

The theory is relevant to this study because it provides a robust understanding of why rapists attack their victims. The theory contends that modernization, which is swiping across the various continents of the world, provide the circumstances under which rape can thrive. Thus, modernization not only contribute to and make daily life activities attractive and pleasurable, but criminals like rapists also exploit those changes for criminal and deviant purposes. In other words, crime (or criminal opportunity) occurs when a suitable, unguarded target converges with an offender in time and space.

The theory is apt in explaining why people failure victim of rape. However, the approach has received its fair share of criticisms from scholars. For instance, while routine activity theory assumes motivated offenders' presence, many researchers discuss how motivations vary across offenders (Wilcox, Land & Hunt 2003). Others argue that the approach fails to adequately address the role of criminal opportunity contexts – the circumstances in which motivated offenders and suitable targets converge in the absence of capable guardians (Wilcox, Land & Hunt 2003). The most enduring criticism of routine activity theory is on the issue of crime displacement. Some scholars argue that the discouragement of a deviant behaviour today does nothing to reduce the likelihood that the offender will not commit a similar crime at another time and place. As the argument goes, guardianship moves offence from one area to another area.

#### **2.2.4 Anderson's behavioural model**

The proponent of this model is Ronald Anderson, 1968. The model was developed to explain factors influencing the disclosure and help-seeking behaviour of Americans. The model examines an individual's demographic characteristic and health delivery system variables on utilization pattern. It hypothesizes that the decision to disclose and seek help is a function of three sets of variables.

Predisposing factors, such as age, sex, marital status, family size, social status, education and race and



Enabling factors, such as family income, health insurance service availability and health level symptoms or perceived sickness.

The need to use service factors.

The model posits that certain factors influence rape victims from disclosing and seeking help, while other factors would enable service utilization. Even though an individual may be predisposed to reveal particular life events, some factors negatively influence (Anderson & Newma, 1973). Enabling conditions make health service resources to the individual. Enabling factors include family income, health insurance and access to a care source (Anderson & Newma, 1973). Therefore, these factors would allow or hinder the health of women of reproductive age by their presence or absence.

Furthermore, Anderson (1968) identified a third factor, the need for service. This, he states, is perhaps the most potent predictor of utilization. Even with predisposing and enabling elements, the individual seeking care must still perceive the need for health care before seeking care (Anderson & Newma, 1973).

This model is relevant to this study because, according to this model such socio-cultural factors such as fear of sterilization, victim relationship to perpetrator, attitude of law enforcement agent, cultural belief, etc., influences disclosure and help-seeking behaviour of rape victim. The victim relationship to the perpetrator could also be a predisposing factor that makes rape victims, especially women, not disclose and seek help. Anderson behavioural model

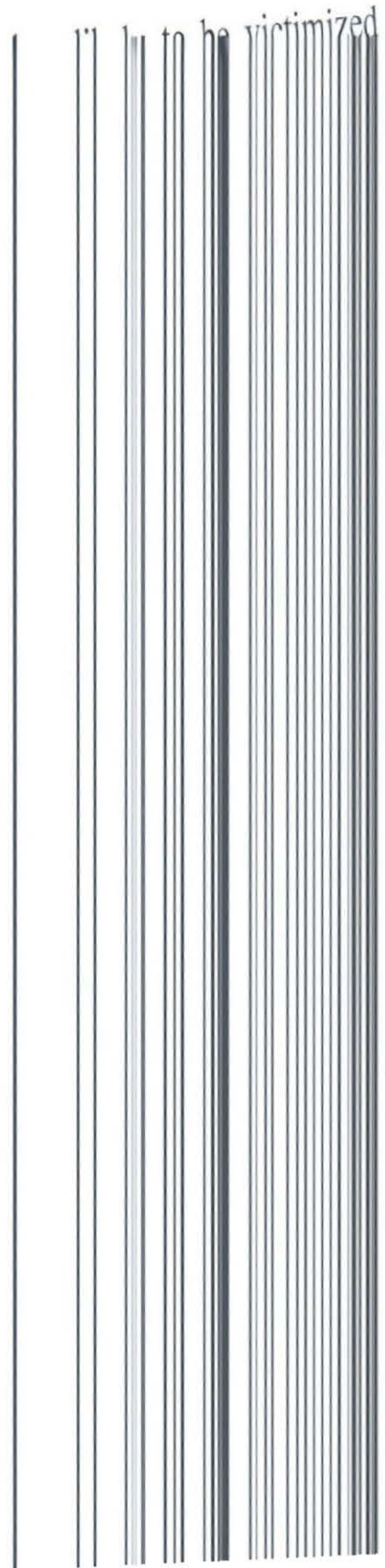
considers socioeconomic cum cultural factors such as family size, education, income, cultural beliefs and others that predisposes, enables and awakens the need to disclose and seek help but does not profoundly explain the effect of these factors on the health of rape victim.

### 2.2.5 Lifestyle-Exposure Theory

Lifestyle-exposure theory was developed to explain patterns of victimization in the United States (Hindelang, Gottfredson, & Garofalo, 1978). Based on their analysis of the data, they found that victimization was not evenly distributed across populations. People with specific demographic characteristics were more likely to report having been a victim. These differences across demographic characteristics would lead them to develop their lifestyle exposure, which posits that demographic characteristics vary across an individual's lifestyle and routine activities, which impacts their victimization risk through exposure to motivated offenders. Hindelang et al. (1978) posited that victimization varies across demographic characteristics due to the differences in an individual's lifestyle and routine activities. This lifestyle influences whom individuals associate with, the potential exposure to crime and the possibility of being a victim of a crime. Hindelang et al. (1978) explain that these associations are relationships among individuals that occur over time due to those individuals sharing lifestyle choices and interests. Thus, association with people having characteristics of offenders can increase the likelihood of personal victimization.

Therefore, based on their theory, Hindelang and colleagues (1978) assert that younger people are more likely than older individuals to be victimized

because they spend more time outside of the home, where they have a higher likelihood of coming into contact with a motivated offender. Also, males and single people experience more victimization because they are more likely to be away from their homes and more exposed to offenders, while females and older individuals being less likely to be out at night or out in general. Despite being away from home, those who work or are in school are more likely to spend time in structured, sheltered environments where they have a lower likelihood of being exposed to predatory offenders. Besides, the higher one's income, the more likely it will be spent in semiprivate or private environments where exposure to motivated offenders is low (Hindelang et al., 1978).



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Also, married and have children will be less likely to be victimized because this lifestyle is more home-centric. Hindelang et al. (1978) assert that findings that victims of certain types of crimes (e.g., rape) are more likely to be disproportionately experienced by male, young, and urban residents from a lower socioeconomic status can be explained through lifestyle differences among these demographic populations that alter their exposure to motivated offenders. Hindelang and colleagues (1978) posit that there are antecedents of these lifestyles that include expectations of people occupying various social roles; constraints on behaviour imposed by economic status, education and family obligations; and individual adaptations to those constraints. The activities or lifestyles that each person engages in reflect varying levels of exposure to risk and experience as a victim (Hindelang et al., 1978). Lifestyles are a distinctive way of distributing one's time, one's interests and one's talent among the expected

social roles of one's life. This applies to all individuals, regardless of age. These lifestyles come from limitations society places on individuals to fulfil role expectations based on their demographic and social characteristics (Hindelang et al., 1978). Role expectations are based on the culture's ideas of what individuals should be doing based on their achieved or ascribed status.

Finally, Hindelang and colleagues (1978) posit that changes in the victim's lifestyle choices are associated with changes in their desirability and convenience to potential offenders. It could be convenient to wait for a potential victim to come to a place at a specific time suitable to the offender. This time and place is often public places at night (Hindelang et al., 1978). From an offender's perspective, not all individuals are equally desirable targets (Hindelang et al., 1978). A potential target's lifestyle can influence the offender's perception of the target's desirability if it appears that the target would likely report the crime to a law enforcement agent. For example, children may be desirable targets for certain crimes committed by other youth due to peer pressures not to inform the police (Hindelang et al., 1978). An individual's visibility to personal victimization increases if the offender sees the potential victim to be less able to resist the offender (Hindelang et al., 1978). A person who is alone or under the influence of alcohol and drugs is relatively visible to victimization. In sum, according to this theory, one's victimization risk is essentially a function of their lifestyles. Individuals who have lifestyles similar to offenders (e.g., being out late at night) are most likely to be victimized (Mustaine & Tewksbury, 2000).

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Research design

The study adopted a survey research design. According to Kothari (2005), a survey refers to any procedure in which data are systematically collected from a population or a sample thereof through some form of direct solicitation, such as face-to-face interviews, telephone interviews, or mail questionnaires. Babbie (2008) posited that survey research is a specific field study that involves collecting data from a sample of elements drawn from a well-defined population, using a questionnaire and other instruments of data collection. This type of research design provides descriptive information from subject responses to questions or item statements. It provides a high level of general capability in representing a large population. Due to the usual huge number of respondents, the data being gathered possess a better description of the relative characteristics of the general population involved in the study (Osuala, 2005). The study opted for this design because it allows for various methods to recruit participants, collect data, and utilize multiple instrumentation forms.

The survey research design is probably the best method available to the social researcher interested in collecting original data to describe a population too large to observe directly (Babbie, 2008). Survey research design was applied in determining the socio-cultural factors influencing disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria. The reason is that the survey takes a representative sample (cross-section) from the population to generalize the study population's findings. This

design enabled the researcher to observe two or more variables at a point in time and helped describe a relationship between two or more variables (Breakwell, Hammond & Fife-Schaw, 1995).

### 3.2 Study area

This study was carried out in the Central Senatorial District of Cross River State, Nigeria. The Central Senatorial District of Cross River State stretches between longitude 7.00 to 858E and Latitude 5.000 to 5.29N. The area is located midway between Cross River South and the Northern Senatorial District. It is bounded in the north by Ogoja, Obudu, and Obanliku Local Government areas of Northern Senatorial District of Cross River State. On south by Biase and Akamkpa Local Government areas, on the east by the Republic of Cameroon, and Ebonyi State in the West. For administrative convenience, the Central Senatorial District of Cross River State is divided into six local government areas: Abi, Yakurr, Ikom, Etung, Boki, and Obubra. It has a project population of 775,250 and is occupying an area of 2005 square Kilometres (Williams, Akpama, Ayang & Iferi-Obeten, 2013).

The Central Senatorial District of Cross River State lies within the rich fringes of South-eastern Nigeria's tropical rainforest zone. The area's primary occupation includes farming, trading, and lumbering (Cross River State Government, 2014). The rich topsoil is laced underneath with unfathomable and extensive beds of limestone, clay, lead, iron, salt, gravel, quartz, pyrite ore, etc. Central Senatorial District's economy is predominantly agricultural and is subdivided into two sectors; the public and private sector. The private sector is

dominated by more than eighty per cent of the state rural worker who engage in subsistence farming. The public sector is run by the government and features large plantations and demonstration farms. Yam, corn, cassava, and rice are some of the major food crops grown while cocoa, palm kernel, palm oil, timber, and rubber are exported. Fishing in inland waterways and deep-sea fishing and shrimping along the coast are significant commercial activities. Fish production in the zone includes fish farming, processing, storage, marketing, in-shore fishing, and fish resources monitoring. Primary livestock in the location are cattle, goats, and sheep. Local farmers and nomadic Fulani's mainly undertake rearing activities in Central Senatorial District, Cross River State.

The people of Central Senatorial District, like any other district, is believed to have migrated from the Bantu race of Central Africa. The influence of the early missionaries is significantly felt in this area. Thus, Christianity is the predominant religion. Generally, the people cherish their culture and tradition. Like all patriarchal society, the area enjoys an age-long and desirable affluent cultural background as a heritage, which endears them to the outside world, elaborately manifested in their traditional dance, marriages, customs, chieftaincy, age grade, and festivals. These festivals include Leboku New Yam Festival in Ugep, Aji New Yam festival, among others.

Eco-tourist attractions in the area include Agbokim Water Falls in Etung Local Government Area, Oyen Open Care in Obubra Local Government Area. Other remarkable tourist attraction is the Alok and Nkarasi Monoliths sites in Ikom Local Government Area. Monoliths are also found in Nta Nsellei Akayu,



Abanyou, and Nde, all in Ikom Local Government Area. The NTA and Nselle people call the carved Monoliths "Akwanshi", meaning "dead person on the ground", while others refer to it as "Atal", meaning "the stones". These historical artefacts consist of several groves containing circles of stones carved in low relief in various human figures, with an annual festival held in the forests (playground) at the end of every dry season (MOFINEWS, 2009). The senatorial district can be accessed mainly by road and water.

### **3.3 Population of the study**

The study population comprised all married adult, male and female, in the Central Senatorial District of Cross River State, Nigeria. The six local government area people are nine hundred and forty-one thousand, seven hundred and seventy-four (941,774) people (National Population Commission, 2006). This number constitutes the total population of the study. The breakdown of the people across the six local government areas showed that the people of people residing in Abi, Local Government Area are 144,802 people, Yakurr, – 195,338, Ikom, – 162,383, Etung, – 80,196, Boki, – 186,611, and Obubra – 172,444. The researcher believes that this population is better positioned to supply reliable data on the subject matter.

### **3.4 Sample size**

The sample size for this study is one thousand, five hundred and thirty five (1535) which is arrived at using the survey monkey sample determinant technique at 95 percent confidence level and a margin error of 2.5 percent. The survey monkey applies both a formular and computer application for easy

application, the researcher used the computer application, the population of the study was entered into the computer software at 95 percent confidence level and a margin error of 2.5 percent, the result displayed showed 1535. The sample

comprised of health workers, civil servants, farmers, fishermen, traders and artisans who are currently residing in the study area.

### 3.5 Sampling techniques

The study adopted stratified sampling technique, simple random, and purposive sampling technique. The study adopted stratified sampling technique because it reduces sampling error as it enabled the researcher to identify and consider the heterogeneous characteristics of the population while drawing the sample. The stratified sampling technique was adopted in the stratification of Local Government Areas into different strata. The simple random sampling technique, on the other hand, was used in selecting the total number of Local Government Areas for the study. Simple random technique was adopted because it gives all the elements equal opportunity of being sampled for the study without any bias. In addition, the purposive sampling technique was used in the selection of respondents. The purposive sampling technique was adopted because it prevents unnecessary and irrelevant items entering into the sample per chance.

Central Senatorial District was stratified into six (6) Local Government Areas. Each Local Government Area forms a stratum. From the six Local Government Areas four (4) Local Government Areas were selected through simple random sampling technique. The four (4) selected Local Government Areas namely, Abi, Yakuur, Obubra, and Ikom constitute the four strata of the

study. Stratum one represents Yakuur Local Government Area, stratum two represents Obubra Local Government Area, stratum three represents Ikom Local Government Area while stratum four represents Abi. Two wards in each of the selected local government area were selected through simple random sampling technique. Eight (8) wards were selected; four from the urban areas while the other four from the rural areas. From the eight (8) wards, two communities/streets were marked and purposively selected. Thus, a total of sixteen (16) communities/ streets were selected for the study. The names of the streets are listed in table 3.1. 96 respondents were purposively selected from fifteen streets/communities and 95 respondents were selected from one street. Thirteen (13) KII were conducted

**Table 3.1: Sample Selection from selected Local Government Area**

S/N	Local Government Area	Wards	Communities/Streets	No. of Samples
1	Yakurr	Ajere	Okonobongha	95
			Akugom	96
		Ijom	Old Market Road	96
			Ikpa Lang	96
2	Abi	Itigidi	Lekpachiel	96
			Eminebol	96
		Ekureku i	Anong	96
			Akpohe	96
3	Ikom	Ikom urban i	Bokomo Street	96
			Ogoja Road	96
		Abanyum	Akomba	96
			Abinti	96
4	Obubra	Obubra Urban	Owakande	96
			Mile i	96
		Ofumbongha/yala	ObarikeWama	96
			Akpambe	96

*Source: Field Survey 2019*

### 3.6 Source of data

The study adopted both primary and secondary sources of data collection method. The primary sources consists of first-hand information obtained from respondents during fieldwork. Also, the questionnaire and key informant interview constitute part of the primary sources of data collection. The unstructured interview allows the interviewee to state his/her opinion on the research questions. The secondary sources of data include textbooks, journal articles, internet materials, National population reports, reports of dailies, and gazette materials.

### 3.7 Instruments of data collection

#### (i) Questionnaire

A 42-item closed and open-ended questionnaire was used for data collection alongside an In-depth Interview guide. The instrument, which is entitled: "Socio-cultural Factors Influencing Disclosure and Help Seeking Behaviour of Rape Victims in Central Senatorial District of Cross River State, Nigeria" (PCVIDHSBRVQ), has three sections, 'A' 'B' and 'C'. Section 'A' elicited demographic information on gender, sex, age, educational status and marital status, among others while Section B was a 25-item, questionnaire, which sought to obtain information on a specific segment of the study such as; victim relationship to perpetrator, attitude of law enforcement agent, cultural belief. Section 'C' of the instrument was designed to measure the independent variable, which is disclosure and help seeking behaviour of rape victims.

(ii) Key Informant Interview (KII)

The key informant interview is the second instrument of data collection that was adopted in this study. A 10 – item key informant interview guide was design to elicit opinion on the major themes of the study. The people that were interviewed were leaders of the women organisations, health workers, artisans, religious leaders, and community chiefs, law enforcement agents, rape victims in the study area. Quantitative methodology according to Sena (1997) assumes that society can be described and understood according to an ontology that is committed to seeing social behaviour as an empirically evident and quantifiable object of investigation.

### 3.7.1 Validity of the instrument

The validity test is essential in any empirical investigation because it helps in the accurate measurement of data. It also aid in obtaining the proper responses from respondents. The instrument was subjected to face and content validity. This was achieved by giving the tool to three experts in Educational Test and Measurement and the thesis supervisors for their criticism and thorough scrutiny in terms of relevance, difficulty levels, appropriateness of words, and representativeness of the items to the content area. Their advice guided the researcher in restructuring some of the items in the instrument.

### 3.7.2 Reliability of the instrument

Reliability refers to the degree of consistency that an instrument demonstrates in measuring what it does. It refers to the consistency with which a device measures what it is supposed to measure overtime (Isangedighi, Joshua, Asim & Ekuri, 2004). To determine the research instrument's reliability

(questionnaire), a trial testing was done using 40 respondents drawn from the study area. Cronbach Alpha reliability estimate of the test instrument was carried out to determine the questionnaire items' internal consistency. Cronbach's alpha provides a measure of the extent to which the items on a questionnaire, each of which could be thought of as a mini-test and provide consistent information with regard to respondents' mastery of the domain. In this way, Cronbach's alpha is often considered a measure of item homogeneity; large alpha values indicate that the items are tapping a common field.

### **3.8 Procedure for data collection**

The validated questionnaire was administered to one thousand, five hundred and thirty -four (1534) respondents selected from the study area, with four research assistants. After a formal self-introduction of the researcher and the assistants was done to explain the researcher's mission to the respondents. Copies of the questionnaire were later distributed to the purposively selected respondents in the study area. Apart from the questionnaire instrument, KII was carried out. The KII participants were community leaders, faith-based organization, health workers, market women, civil servants, rape victims, law enforcement agents, and the general public who are knowledgeable on the subject matter. The KII provided valuable knowledge far beyond the limit of the quantitative instrument.

The researcher prepared an interview guide that served as a guide to her in this study. The KII questions were designed to generate collective views and concerning various groups on the subject matter. Interactions during KII were

tape-recorded and later transcribed. The interviewee desired to stay undisclosed and requested that his or her identity should not be recorded. The research assistance takes extensive notes. The KII participants were purposively gathered on two basis: "the relevance of a respondent's official position and a respondent's reputation for being knowledgeable on the issue of rape. Elicited data were qualitatively analyzed through the use of content analysis. Nueman (1997) asserts that content analysis enables the researcher to gather and analyse data in the context of text. Content is concerned with themes, and content involves frequencies or looking at quantitative data such as percentages.

### 3.9 Ethical considerations

It was made clear to respondents that participated in this study was voluntary, and discrimination will not occur against those who do not want to participate. This study's nature and purpose was discussed with the participants by the researcher, and an information sheet was handed out. Assigning codes for each questionnaire and consent form was implemented to ensure confidentiality for participants. Participants were offered the opportunity to receive a copy of the research report if they so wish.

### 3.10 Method of data analysis

Data collected were assessed to make sure all items in each of the questionnaire is responded to. After that, the responses were edited, coded and analyzed using appropriate statistical methods. Frequency distribution, simple percentages and linear regression analytical procedure was employed. This statistical tool was found suitable because it deals with the strength and linear

relationship between two variables. The analysis was done hypothesis by hypothesis, testing each at a 0.05 level of significance.

(i) Hypothesis one

Stigmatization does not significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State

Independent variable: Fear of stigmatization

Dependent variable: Disclosure and help seeking behaviour of rape victims

Statistical technique: Linear Regression

(ii) Hypothesis two

Victim relationship to perpetrator has no significant influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State

Independent variable: Victim relationship to perpetrator

Dependent variable: Disclosure and help seeking behaviour of rape victims

Statistical technique: Linear Regression



(iii) Hypothesis three

Attitude of law enforcement agent does not significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State

Independent variable: Attitude of law enforcement agent

Dependent variable: Disclosure and help seeking behaviour of rape victims

Statistical technique: Linear Regression

(iv) Hypothesis four

Cultural beliefs has no significant influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State

Independent variable: Cultural belief

Dependent variable: Disclosure and help seeking behaviour of rape victims

Statistical technique: Linear Regression

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS, AND DISCUSSION OF FINDINGS

#### 4.1 Data presentation

In this section, the study's main variables are identified, their mean and standard deviation calculated. The Statistical Package for social sciences (SPSS) version 21 was used to analyze data. Percentages and graphs were first used to analyze the demographic data (Gender; age; marital status; educational status, occupation, years in the community), and the results are presented in table 4.1 with graphical illustration in figure 1 through 6. While, descriptive statistics involving mean and standard deviation were used for other variables and presented in table 4.2. The study's independent variables are; fear of stigmatization, victim relationship to perpetrator, Attitude of law enforcement agents, and cultural belief. Simultaneously, the dependent variable is disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State. Of the two thousand four hundred and eighty (2480) questionnaire distributed, one thousand and five hundred and thirty-four (1534) questionnaire were returned and used for the analysis.

Results show that 682 (44.00) respondents were male, while 852 (56.00%). The distribution of respondents based on age revealed 288 (19.00%) respondents were below 30 years, 461 (30.00%) respondents were aged 31-40 years, 434 (28.00%) respondents were aged 41-50 years while, 351 (23.00%) respondents were aged 51 years and above, a pictorial illustration is presented in Figure 2.

The distribution of respondents based on marital status revealed that 834 (54.00%) were married; 577 (38.00%) were single, 76 (5.00%) were divorced, 31 (2.00%) were widow, while 16 (1.00%) were widowed. A graphical illustration is presented in figure 3. The distribution of respondent's base on educational status showed that, 213 (14.00%) had completed GCE/SSCE, 577 (38.00%) had completed HND/BSc. /B.Ed./BA, 242 (16.00%) had completed FSLC, 248 (16.00%) had completed NCE/OND, 147 (10.00%) had completed MSc. /PhD, while 107 (7.00%) had no formal education. A graphical illustration is presented in figure 4. The distribution of respondents based on the number of years spent in the community revealed that 77 (5.00%) had spent 1-5years, 115 (7.00%) had spent 6-10years, 203 (13.00%) had spent 11-15years, while 1139 (13.00%) had spent 16years and above. A graphical illustration is presented in figure 5. Out of the 1534 respondents used in this study, most of the respondents' 416 (27.00%) were civil servants, 370 (24.00%) respondents were farmers, 305 (20.00%) were into various kind of business. 399 (26.00%) were students, while only 44 (3.00%) were in the others' category. A graphical illustration is presented in figure 6.

TABLE 4.1  
Respondents' demographic data

Variable	Category	N	Percent (%)
Gender	Male	682	44.00
	Female	852	56.00
	Total	1534	100
Age	Below 30 years	288	19.00
	31 – 40 years	461	30.00
	41 - 50 years	434	28.00
	51 years and above	351	23.00
	Total	1534	100
Marital status	Single	577	38.00
	Married	834	54.00
	Divorced	76	5.00
	Widow	31	2.00
	Widower	16	1.00
	Total	1534	100
Educational status	No formal education	107	7.00
	FSLC	242	16.00
	GCE/SSCE	213	14.00
	NCE/OND	248	16.00
	HND/B.Sc./B.Ed./B.A	577	38.00
	M.Sc./Ph.D	147	10.00
	Total	1534	100
Years in the community	1 – 5 years	77	5.00
	6 – 10 years	115	7.00
	11 – 15 years	203	13.00
	16 years and above	1139	74.00
	Total	1534	100
Occupation	Farmer	370	24.00
	Civil Servant	416	27.00
	Business	305	20.00
	Student	399	26.00
	Others	44	3.00
	Total	1534	100

Source: Field survey, 2019

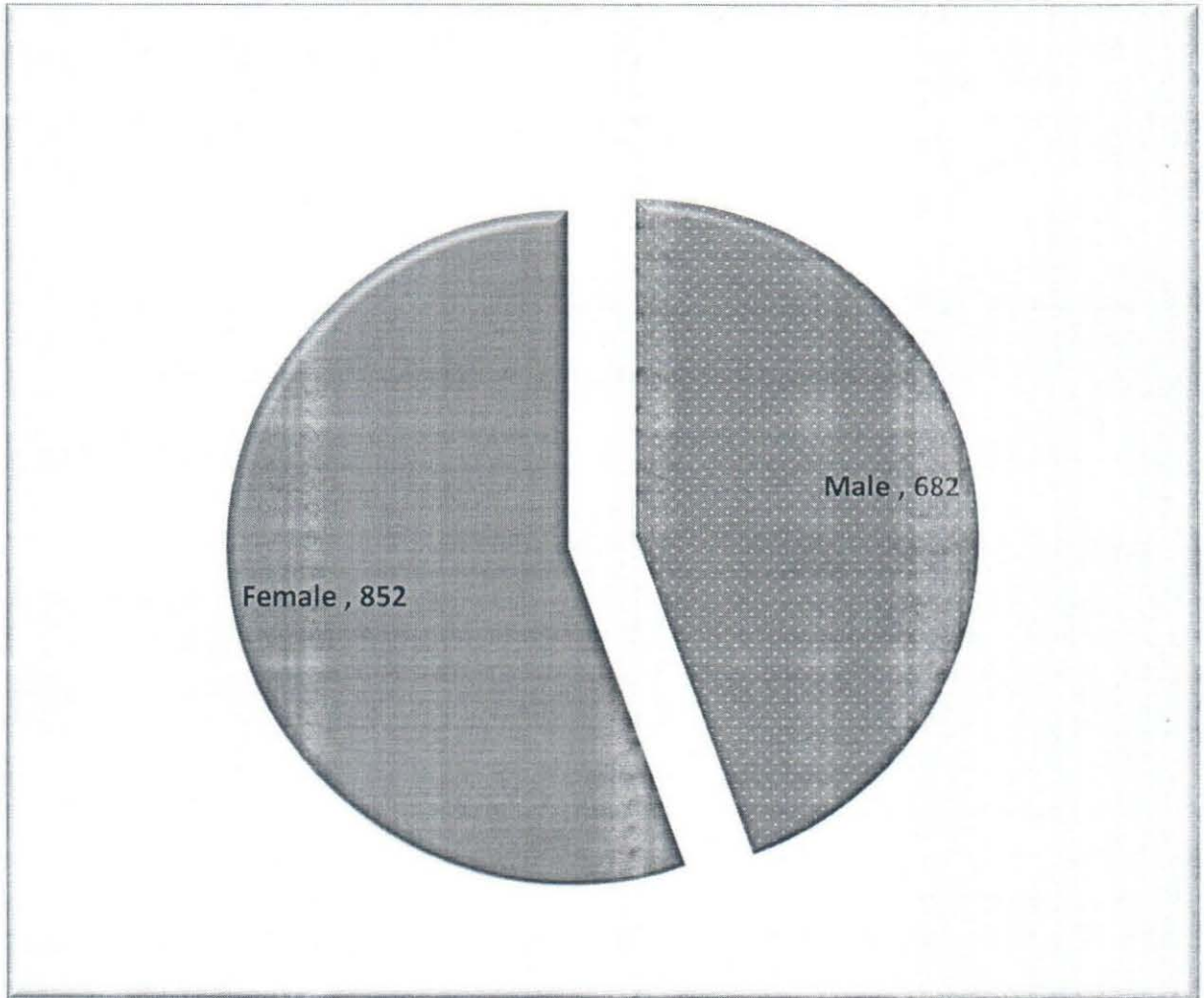


Figure 1:  
Graphical illustration of respondents' gender distribution

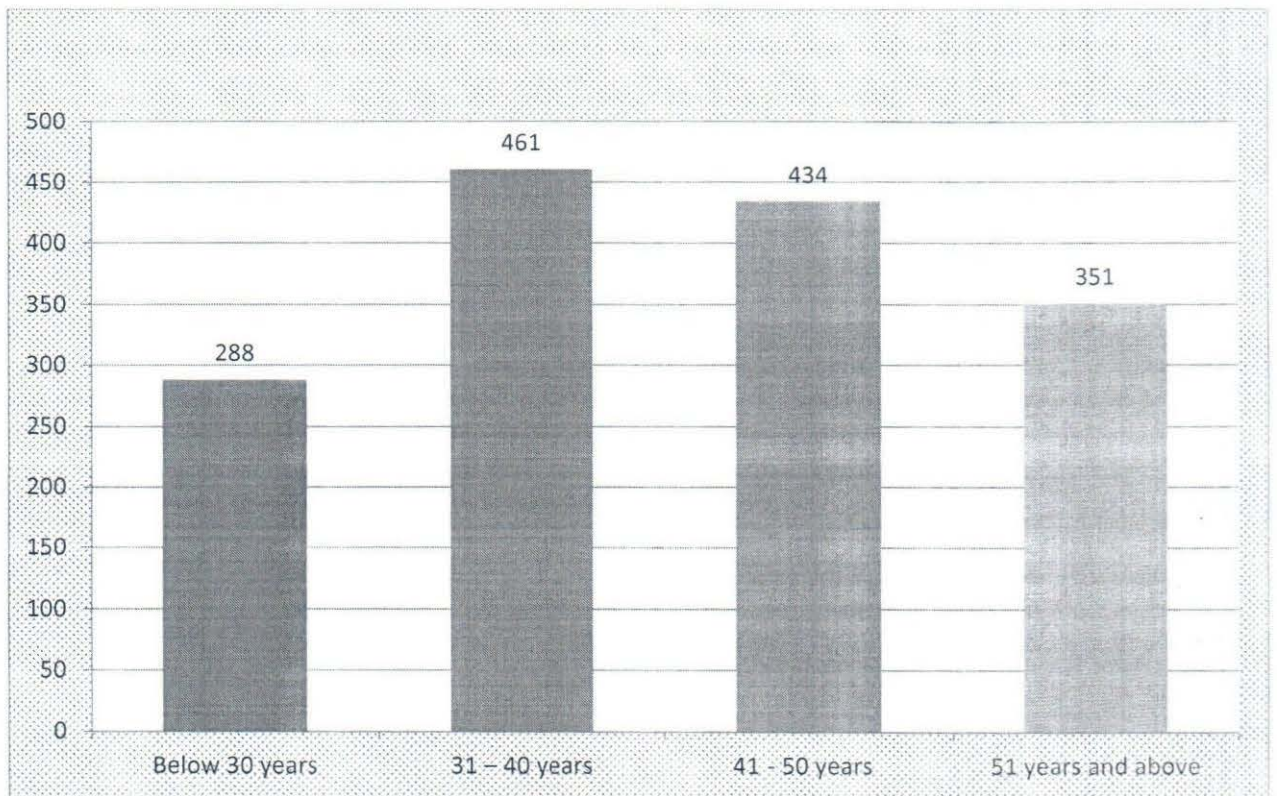


Figure 2:  
Graphical illustration of respondents' age distribution

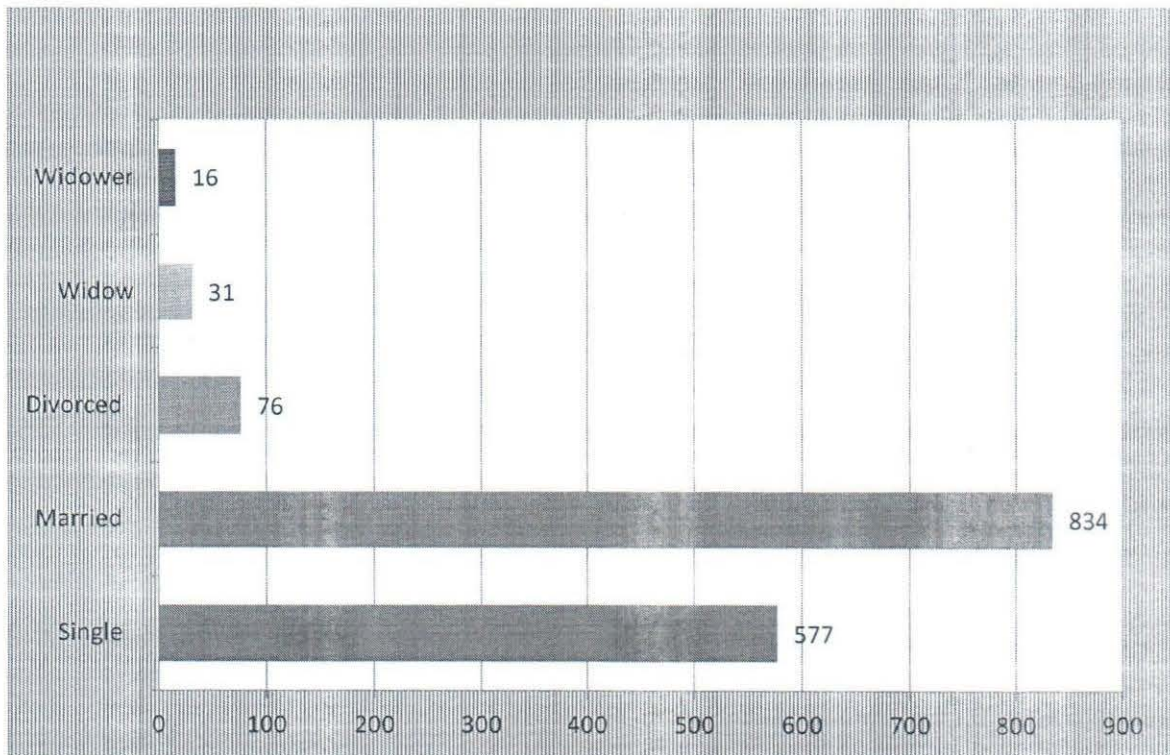


Figure 3:  
Graphical illustration of respondents' marital status

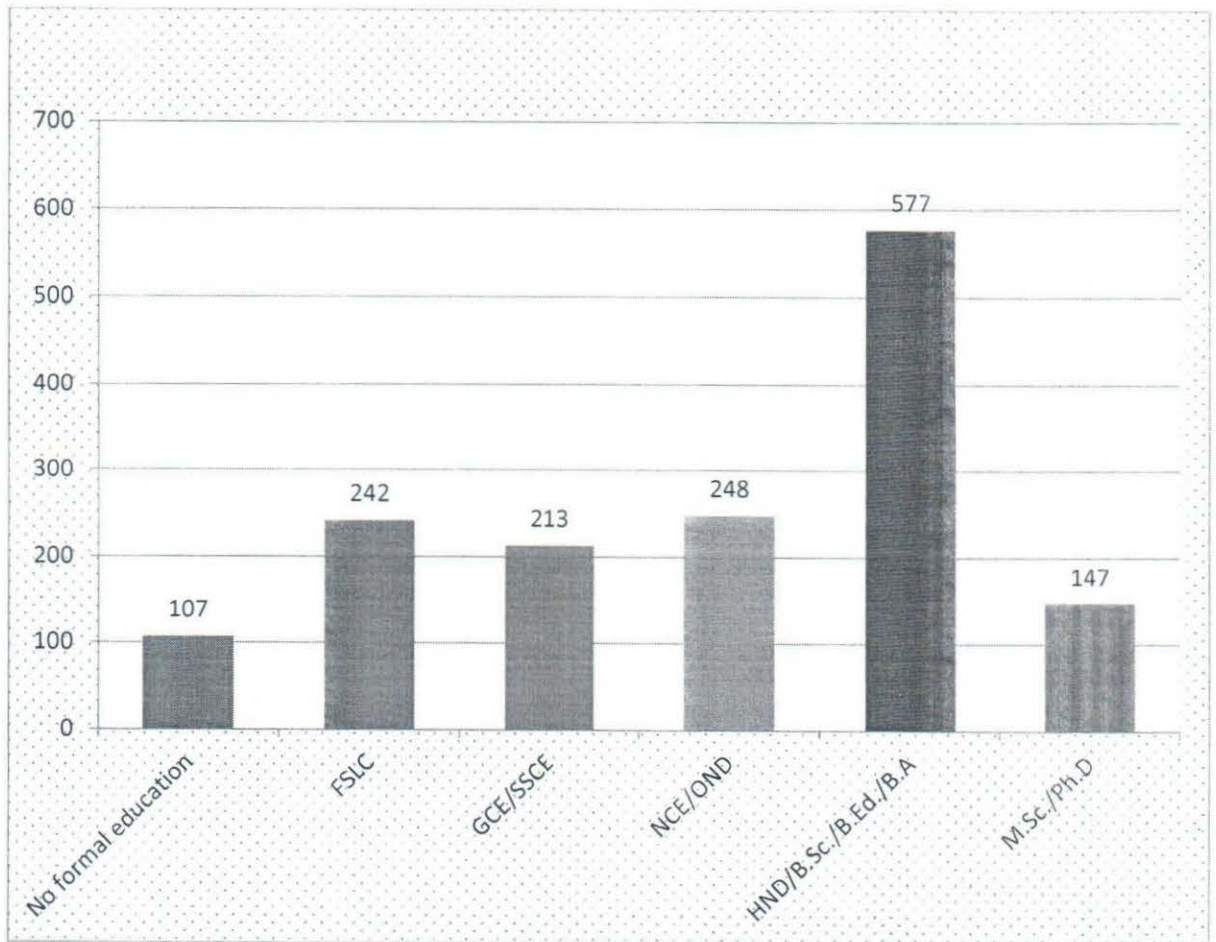


Figure 4:  
Graphical illustration of respondents' education status



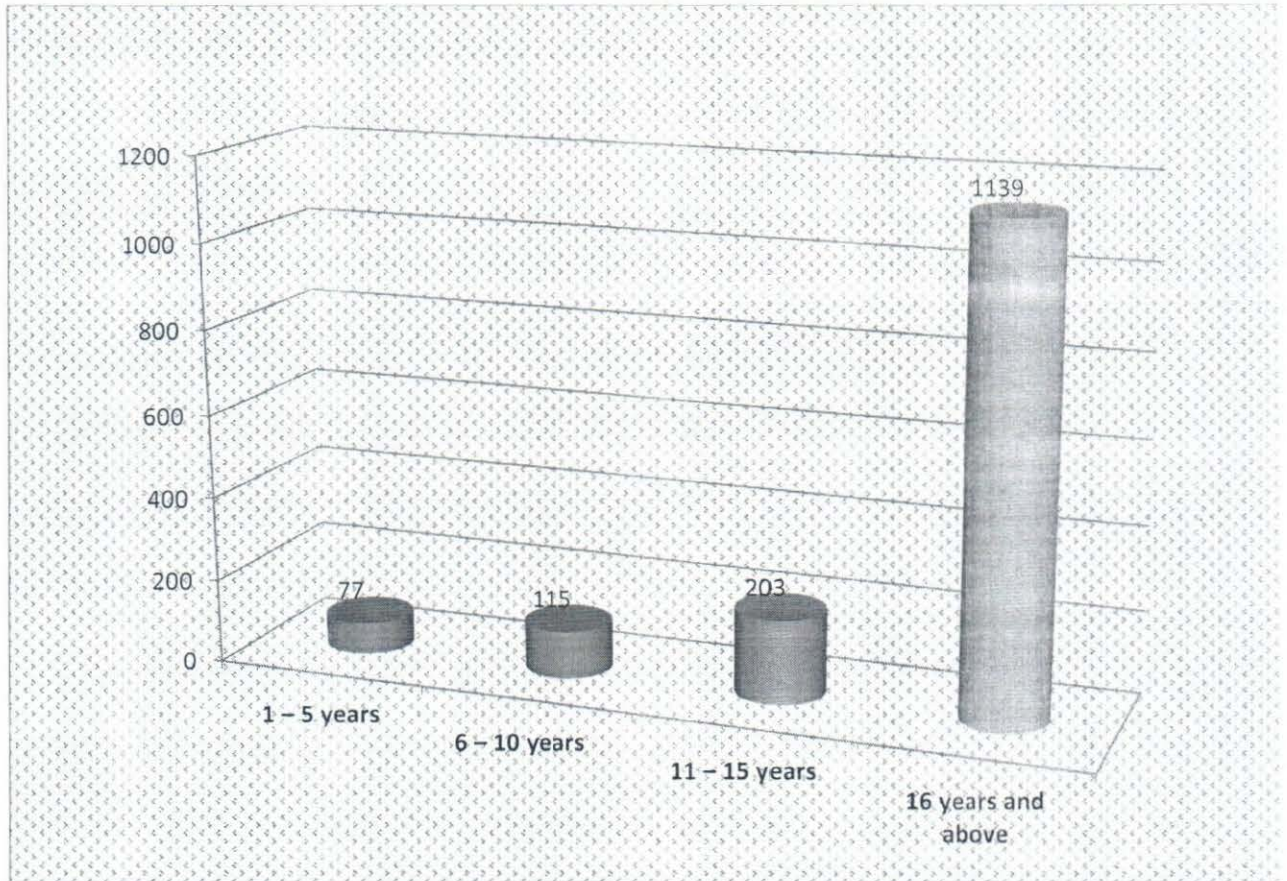


Figure 5:

Graphical illustration of respondents' years of resident in the communities

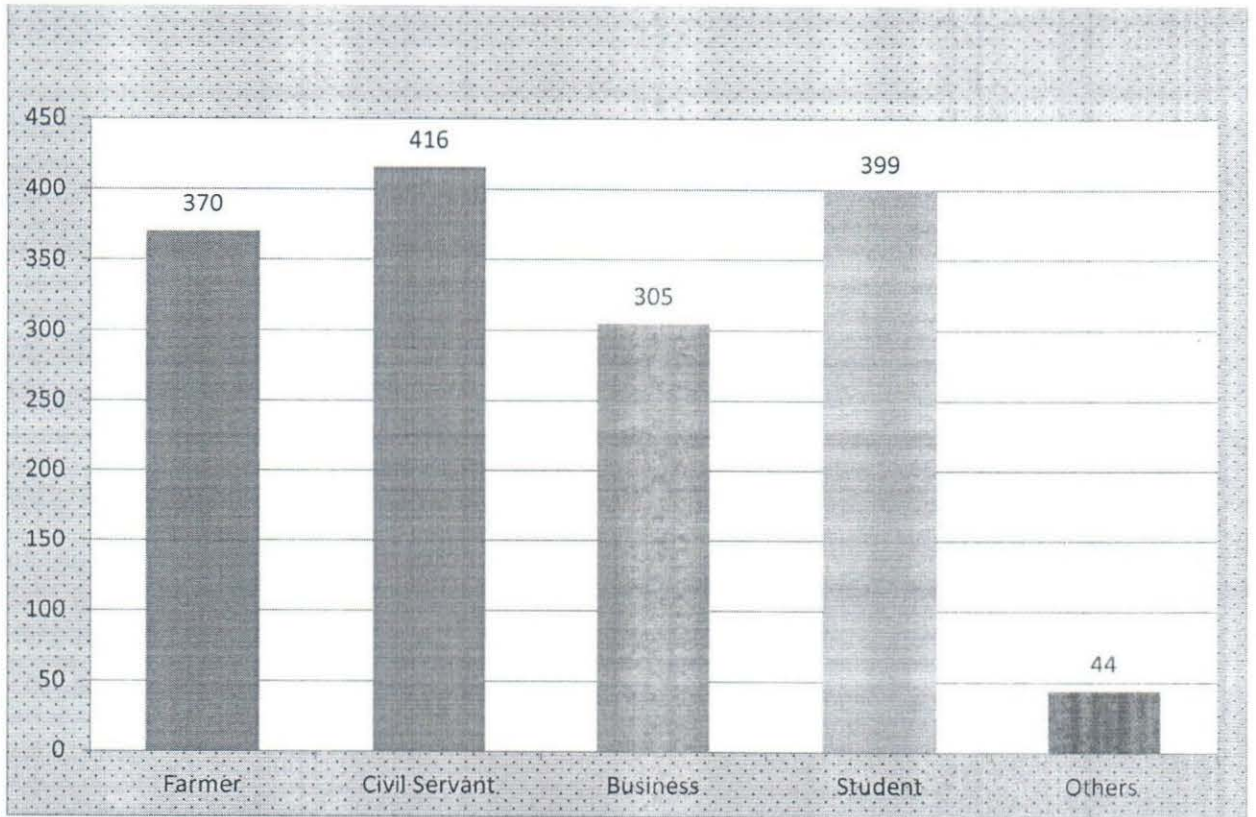


Figure 6:  
Graphical illustration of respondents' occupation

Table 4.2  
Descriptive statistics of variables

Variables	N	Mean	Std. Deviation
	Statistic	Statistic	Statistic
Fear of stigmatization	1534	10.6076	4.95589
Victim relationship with perpetrator	1534	12.3514	5.00095
Attitude of law agents	1534	13.9140	3.63291
Cultural beliefs	1534	14.4309	4.14245
Help seeking behaviour	1534	43.1206	10.83352
Valid N (listwise)	1534		

## 4.2 Presentation of results

The results of analysis are presented according to research questions and hypotheses of the study:

### Research question one

Does stigmatization predict help seeking behaviour of rape victims in Central Senatorial District of Cross River State?

Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.3

Results of analysis as indicated in table 4.3 shows participants response pattern as follows; on whether rape victims find it difficult to speak out and seek help because of how they will be treated by friends and neighbours; 842 representing 54.90% of participants strongly agreed, 663 representing 43.22% agreed, while only 18 representing 1.17% disagreed and 11 representing 0.71% strongly disagreed. As to whether rape victims not disclosing and seeking help for fear of shame and public embarrassment, 965 (62.90) strongly agreed, 558 (36.37) agreed, while only 7 (0.45) disagreed and 4 (0.26) disagreed. Fear of being ostracized by the community due to the dishonour associated with rape is responsible for continued silence and poor help seeking behaviour of rape victim 762 (49.67) strongly agreed, 770 (50.19) agreed, 2 (0.13) disagreed, and 0 (0.00) strongly disagreed. On whether sense of guilt or blame about their role in the rape assaults provoke victims not to report the rape incident and seek help; 822 (53.58) strongly agreed, 692 (45.11) agreed, 15 (0.97) disagreed and only 5 (0.32) strongly disagreed. On whether the blame on the victim of rape rather than

the rapist is one of the reasons rape cases are underreported and victim hardly seek help; 714 (46.54) strongly agreed, 811 (52.86) agreed, while 6 (0.39) disagreed and only 3 (0.19) strongly disagreed. For fear of more abuse being responsible for silence after one is raped, 810 (52.80) strongly agreed, 707 (46.10) agreed, while 9 (0.60) disagreed and 8 (0.50) strongly disagreed.

TABLE 4.3

Responses on stigmatization and help seeking behaviour of rape victims

ITEMS	SSA		D	SSD
Rape victims find it difficult to speak out and seek help because of how they will be treated by friends and neighbours	842 (54.90)	663 (43.22)	18 (1.17)	11 (0.71)
Rape victims do not disclose and seek help for fear of shame and public embarrassment	965 (62.90)	558 (36.37)	7 (0.45)	4 (0.26)
Fear of being ostracized by the community due to the dishonour associated with rape is responsible for continued silence and poor help seeking behaviour of rape victim	762 (49.67)	770 (50.19)	2 (0.13)	0 (0.00)
A sense of guilt or blame about their role in the rape assaults provoke victims not to report the rape incident and seek help	822 (53.58)	692 (45.11)	15 (0)	5 (0.32)
The blame on the victim of rape rather than the rapist is one of the reasons rape cases are underreported and victim hardly seek help	714 (46.54)	811 (52.86)	6 (0.39)	3 (0.19)
Fear of more abuse is responsible for silence after one is raped	810 (52.80)	707 (46.10)	9 (0.60)	8 (0.50)

Field survey 2019

### Research question

Victim relationship to perpetrator is not a significant influencing factor of disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State?

Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.4

Results of analysis as indicated in table 4.4 shows participants response pattern as follows; as to whether the desire of victim's family to maintain existing cordial relationship with the perpetrator discourages disclosure and help seeking behaviour of rape survivor; 654 representing 42.63% of participants strongly agreed, 798 representing 52.0% agreed, while only 61 representing 3.97% disagreed and 21 representing 1.36% strongly disagreed. On whether victims family finds it difficult to report a perpetrator when he or she is close to the family in order to avoid ridiculing the person, 777 (50.65) strongly agreed, 722 (47.06) agreed, while only 24 (1.56) disagreed and 11 (0.71) strongly disagreed. When asked whether in order to avoid shame and public embarrassment rape victims do not open up and seek help, when the perpetrator is a close family member, 842 (54.88) strongly agreed, 666 (43.41) agreed, 16 (1.04) disagreed, and 10 (0.65) strongly disagreed. On whether parents of raped victims find it difficult to come out publicly to report such cases when the perpetrator is a member of the family; 598 (38.98) strongly agreed, 886 (57.75) agreed, 33 (2.15) disagreed and only 17 (1.10) strongly disagreed. On whether parents are quick to report rape case against their children when it involves a domestic worker; 7785 (51.17)

strongly agreed,693 (45.17) agreed, while 229 (1.89) disagreed and only 227 (1.76) strongly disagreed. On whether most rapists are close friends or associates to the raped victim family,644 (41.98) strongly agreed,578 (37.67) agreed, while 162 (10.56) disagreed and 15 (9.77) strongly disagreed.



TABLE 4.4

Responses on relationship to perpetrator and help seeking behaviour of rape victims

ITEMS	SA	A	D	SD
The desire of victim's family to maintain existing cordial relationship with the perpetrator discourages disclosure and help seeking behaviour of rape survivor	654 (42.63)	798 (52.0)	61 (3.97)	21(1.3 6)
Victims family finds it difficult to report a perpetrator when he or she is close to the family in order to avoid ridiculing the person	777 (50.65)	722 (47.06)	24 (1.56)	11 (0.71)
In order to avoid shame and public embarrassment rape victims do not open up and seek help, when the perpetrator is a close family member	842 (54.88)	666 (43.41)	16 (1.04)	10 (0.65)
Parents of raped victims find it difficult to come out publicly to report such cases when the perpetrator is a member of the family	598 (38.98)	886 (57.75)	33 (2.15)	17 (1.10)
Parents are quick to report rape case against their children when it involves a domestic worker	7 785 (51.17)	693 (4517)	2 29 (1.89)	2 27 (1.76)
Most rapists are close friends or associates to the raped victim family	644 (41.98)	578 (37.67)	162 (10.56)	15 (9.77)

Field survey 2019

### Research question three

Does attitude of law enforcement agent influences disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State?

Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.5

Results of analysis as indicated in table 4.5 shows participants response pattern as follows; asked whether the rigorous requirement involved in producing authentic evidence of rape such as getting a medical report, as well as a police report within the shortest possible interval of any rape incident, makes disclosure and help seeking difficult; 720 representing 46.93% of participants strongly agreed, 684 representing 44.58% agreed, while 64 representing 4.17% disagreed and 66 representing 4.30% strongly disagreed. On the victims fear of being accused by police for consenting to the sexual intercourse with the rapists, make rape one of the most underreported crime, 5746 (48.63) strongly agreed, 676 (44.06) agreed, while 51 (3.32) disagreed and 11 (0.71) strongly disagreed. When asked if the fear that the police may be unwilling to make an official report due to insufficient evidence makes rape survivors not to report the case, 756 (49.28) strongly agreed, 652 (42.50) agreed, 65 (4.23) disagreed, and 61 (3.97) strongly disagreed. On culture of silence aggravated among rape victim because of humiliation and intimidation suffered by victims in the hands of the police; 782 (50.97) strongly agreed, 631 (41.13) agreed, 67 (4.36) disagreed and only 54 (3.52) strongly disagreed. On whether Dismissive attitude within the

police and inaccessible justice system makes it difficult for rape victim to report the incident to the police; 774 (50.45) strongly agreed, 642 (41.85) agreed, while 62 (4.04) disagreed and only 56 (3.65) strongly disagreed. On whether rape survivors find it difficult to report the matter because such cases are stagnated in court with numerous adjournments and later dismissed on technical ground by the court, 761 (49.60) strongly agreed, 654 (42.63) agreed, while 68 (4.43) disagreed and 51 (3.32) strongly disagreed.

Table 4.5

Responses on attitude of law enforcement agents and help seeking behaviour of rape victims

ITEMS	SA	A	D	SD
The rigorous requirement involved in producing authentic evidence of rape such as getting a medical report, as well as a police report within the shortest possible interval of any rape incident, makes disclosure and help seeking difficult.	720 (46.93)	684 (44.58)	64 (4.17)	66 (4.30)
The victims fear of being accused by police for consenting to the sexual intercourse with the rapists, make rape one of the most underreported crime	5 746 (48.63)	676 (44.06)	51 (3.32)	61 (3.97)
The fear that the police may be unwilling to make an official report due to insufficient evidence makes rape survivors not to report the case.	756 (49.28)	652 (42.50)	65 (4.23)	61 (3.97)
The culture of silence is aggravated among rape victim because of humiliation and intimidation suffered by victims in the hands of the police	782 (50.97)	631 (41.13)	67 (4.36)	54 (3.52)
Dismissive attitude within the police and inaccessible justice system makes it difficult for rape victim to report the incident to the police	774 (50.45)	642 (41.85)	62 (4.04)	56 (3.65)
Rape survivors find it difficult to report the matter because such cases are stagnated in court with numerous adjournments and later dismissed on technical ground by the court.	761 (49.60)	654 (42.63)	68 (4.43)	51 (3.32)

Field survey 2019

#### Research question four

To what extent does cultural beliefs influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State?

Descriptive statistics (frequency and percentage) was used to answer the research question. Participants' responses are presented in table 4.6

Results of analysis as indicated in table 4.5 shows participants response pattern as follows; as to whether Rape is one of the most underreported crime, which victim hardly seek help because culturally it is seen as an inevitable occurrence; 675 (44.00) strongly agreed, 783 (51.04) agreed, while 43 (2.80) disagreed 33 (2.15) strongly disagreed. On the the belief that rape survivors deserve what they got is the reason why victims find it difficult to report to appropriate authority, 740 (48.23) strongly agreed, 681 (44.40) agreed, while 52 (3.40) disagreed and 61 (3.97) strongly disagreed. When asked if perceiving men as being in control and a dominant force in relationship makes female rape victim not to disclose and seek help when they are raped, 688 (44.86) strongly agreed, 674 (43.93) agreed, 101 (6.58) disagreed, and 71 (4.62) strongly disagreed. On women seeing themselves as objects of sexual pleasure makes it difficult for them to report and seek help when raped; 635 (41.40) strongly agreed, 596 (38.85) agreed, 218 (14.21) disagreed and only 85 (5.54) strongly disagreed. On whether Dismissive attitude within the police and inaccessible justice system makes it difficult for rape victim to report the incident to the police; 774 (50.45) strongly agreed, 642 (41.85) agreed, while 62 (4.04) disagreed and only 56 (3.65) strongly

disagreed. On whether the belief that nobody will listen to their story is the rationale behind underreporting and help seeking behaviour of rape victim, 811 (52.86) strongly agreed, 643 (41.91) agreed, 37 (2.41) disagreed and 43 (2.80) strongly disagreed. As to the belief that it is the survivors responsibility to prove that his or her actions and reputation did not facilitate the rape explains why raped victims hardly report the incidence, 606 (39.50) strongly agreed, 736 (47.97) agreed, 91 (5.93) disagreed and 101 (6.58) strongly disagreed

TABLE 4.6

Responses on cultural belief and help seeking behaviour of rape victims

ITEMS	SA	A	D	SD
Rape is one of the most underreported crime, which victim hardly seek help because culturally it is seen as an inevitable occurrence	675 (44.00)	783 (51.04)	43 (2.80)	33 (2.15)
The belief that rape survivors deserve what they got is the reason why victims find it difficult to report to appropriate authority	740 (48.23)	681 (44.40)	52 (3.40)	61 (3.97)
Perceiving men as being in control and a dominant force in relationship makes female rape victim not to disclose and seek help when they are raped	688 (44.86)	674 (43.93)	101 (6.58)	71 (4.62)
Women seeing themselves as objects of sexual pleasure makes it difficult for them to report and seek help when raped.	635 (41.40)	596 (38.85)	218 (14.21)	85 (5.54)
The belief that nobody will listen to their story is the rationale behind underreporting and help seeking behaviour of rape victim	811 (52.86)	643 (41.91)	37 (2.41)	43 (2.80)
The belief that it is the survivors responsibility to prove that his or her actions and reputation did not facilitate the rape explains why raped victims hardly report the incidence	606 (39.50)	736 (47.97)	91 (5.93)	101 (6.58)

Field survey 2019

Results of analysis as indicated in table 4.7 shows participants response pattern as follows; as to whether date rape are hardly reported to appropriate authorities because of the personality of the person involved 710 (46.28) strongly agreed, 649 (42.30) agreed, while 121 (7.90) disagreed 54 (3.52) strongly disagreed. On whether victims of gang rape finds it difficult to report the matter as well as seek help because of the shame and humiliation, 585 (38.13) strongly agreed, 687 (44.80) agreed, while 153 (9.97) disagreed and 109 (7.10) strongly disagreed. When asked if rape survivors anger or retaliatory rape finds it difficult to open up and seek help because of the indifference attitude of the police, 803 (52.34) strongly agreed, 515 (33.57) agreed, 104 (6.77) disagreed, and 112 (7.30) strongly disagreed. On women power rape is hardly reported because the prevalence of cultural belief, 694 (45.24) strongly agreed, 671 (43.74) agreed, 114 (7.43) disagreed and only 55 (3.58) strongly disagreed. On whether the culture of silence surrounding rape and victims poor help seeking behaviour is as result of fear of being stigmatized; 736 (47.97) strongly agreed, 562 (36.74) agreed, while 128 (8.34) disagreed and only 108 (7.04) strongly disagreed. On whether rape is on the increase because of poor reporting and help seeking behaviour of victims, 591 (38.52) strongly agreed, 616 (40.15) agreed, 177 (11.53) disagreed and 150 (9.80) strongly disagreed.



TABLE 4.7  
Responses on help seeking behaviour of rape victims

ITEMS	SA	A	D	SD
Date rape are hardly reported to appropriate authorities because of the personality of the person involved	710 (46.28)	649 (42.30)	121 (7.90)	54 (3.52)
Victims of gang rape finds it difficult to report the matter as well as seek help because of the shame and humiliation	585 (38.13)	687 (44.80)	153 (9.97)	109 (7.10)
Rape survivors of anger or retaliatory rape finds it difficult to open up and seek help because of the indifference attitude of the police	803 (52.34)	515 (33.57)	104 (6.77)	112 (7.30)
Power rape is hardly reported because the prevalence of cultural belief	694 (45.24)	671 (43.74)	114 (7.43)	55 (3.58)
The culture of silence surrounding rape and victims poor help seeking behaviour is as result of fear of being stigmatized	736 (47.97)	562 (36.74)	128 (8.34)	108 (7.04)
Rape is on the increase because of poor reporting and help seeking behaviour victims	591 (38.52)	616 (40.15)	177 (11.53)	150 (9.80)

Field survey 2019

### Hypotheses one

Fear of stigmatization does not significantly predict disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. The independent variable in this hypothesis is fear of stigmatization, while the dependent variable is disclosure and help seeking behaviour of rape victims. Both variables were measured continuously and inferential statistics involving Simple linear regression statistics was used to test this hypothesis at 0.05 level of significance and the result is presented in table 4.8

The result of analysis as presented in table 8, with graphical illustration in figure 7, 8 and 9 revealed that the R-value of 0.318<sup>a</sup> is significant at 0.05 alpha level ( $p = .000^a < 0.05$ ), therefor the stated null hypothesis was rejected. This implies that there is a significant contribution of fear of stigmatization to disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. Also, the  $R^2$ -value of .092 implies that 92% of total variance is accounted for by predictor variable (fear of stigmatization). Furthermore, the regression ANOVA revealed that, there was a high joint linear association (contribution) of the predictor variables (fear of stigmatization) on help seeking behaviour of rape victims in Central Senatorial District of Cross River State given by the  $F(1, 1532) = 50.002; p < 0.05$ . The adjusted  $R^2$  (.091) shows some shrinkage of the unadjusted value (.092) indicating that the model could be generalized on the population. Based on the result, it was concluded that fear of stigmatization could significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State.

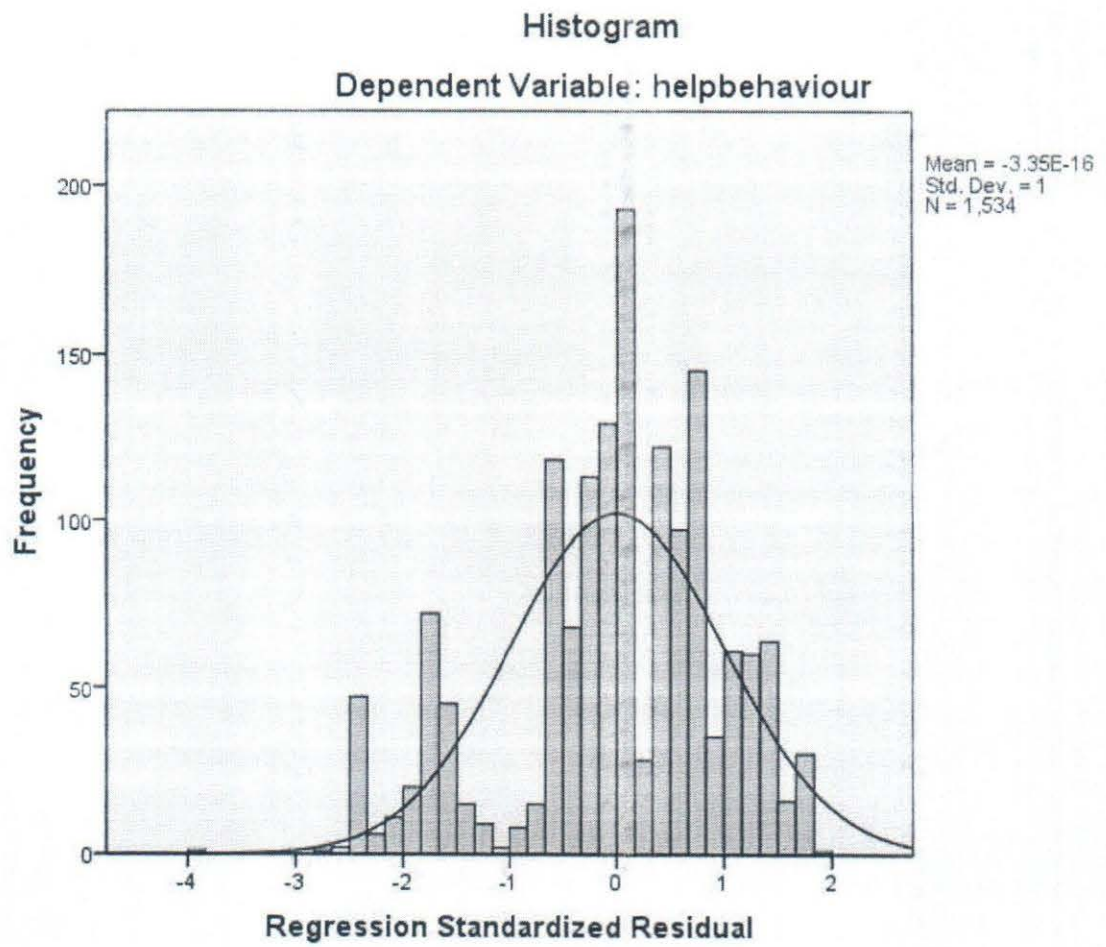
TABLE 4.8

Variables	Mean	Std. Deviation
Fear of stigmatization	10.6076	4.95589
Help seeking behaviour	43.1206	10.83352

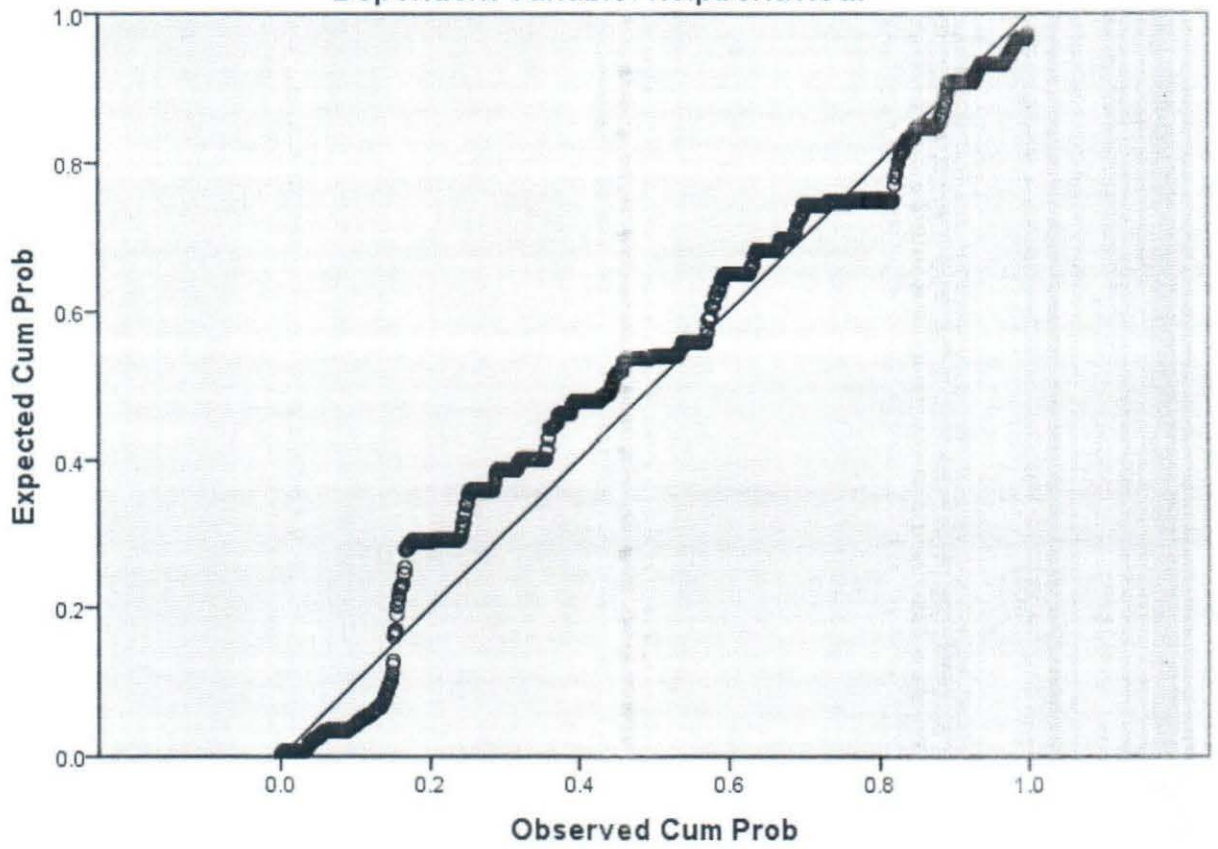
  

Model	Sum of Squares	Df	F	R	R Square	Adjusted R Square	Sig
Regression	5686.668	1	50.002	.318 <sup>a</sup>	.092	.091	.000 <sup>a</sup>
Residual	174234.021	1532					
Total	179920.689	1533					

p < 0.05

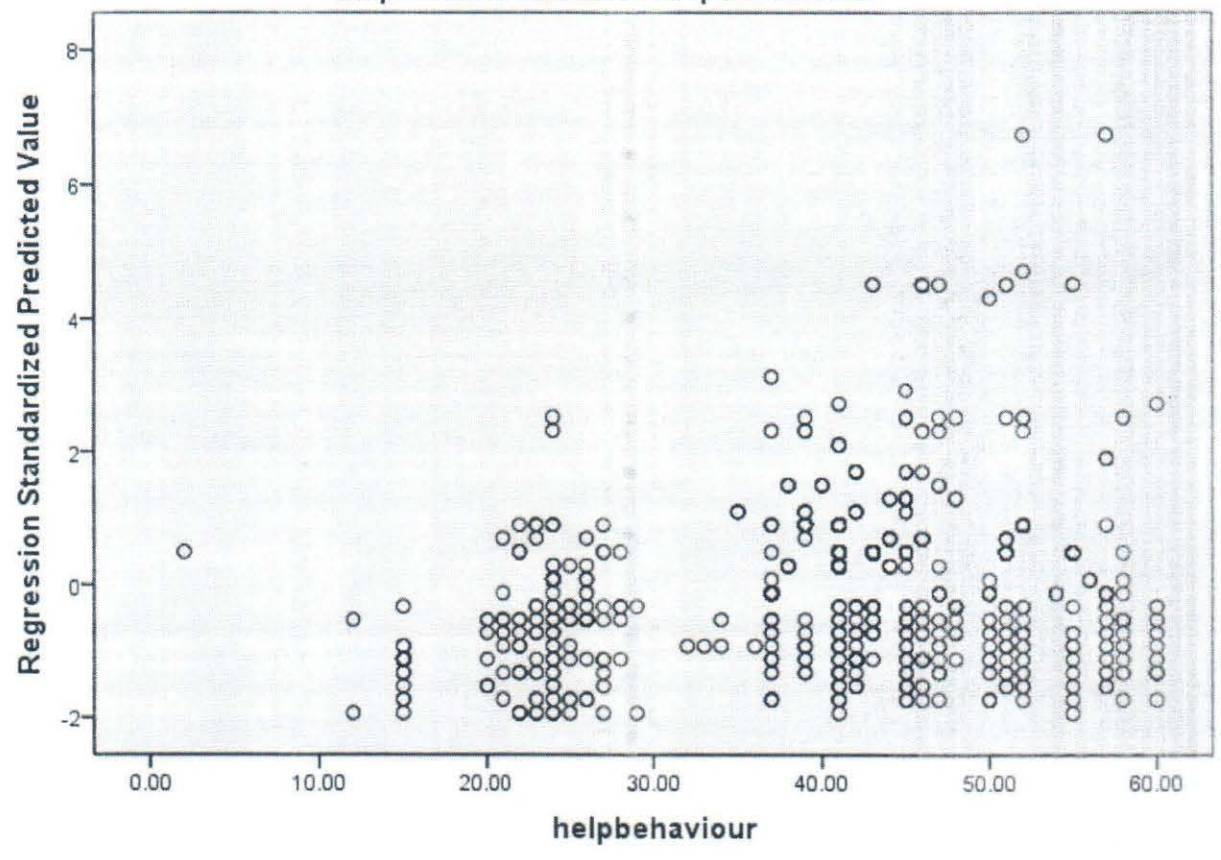


Normal P-P Plot of Regression Standardized Residual  
Dependent Variable: helpbehaviour



### Scatterplot

Dependent Variable: helpbehaviour



### **Hypotheses two**

Victim relationship to perpetrator does not significantly predict disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. The independent variable in this hypothesis is Victim relationship to perpetrator, while the dependent variable is disclosure and help seeking behaviour of rape victims. Both variables were measured continuously, Inferential statistics involving Simple linear regression statistics was used to test this hypothesis at 0.05 level of significance and the result is presented in table 4.9

The result of analysis as presented in table 9, with graphical illustration in figure 10, 11 and 12 revealed that the R-value of 0.243<sup>a</sup> is significant at 0.05 alpha level ( $p = .000^a < 0.05$ ), therefore the stated null hypothesis was rejected. This implies that there is a significant contribution of Victim relationship to perpetrator to disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. Also, the  $R^2$ -value of .079 implies that 79% of total variance is accounted for by predictor variable (Victim relationship to perpetrator). Furthermore, the regression ANOVA revealed that, there was a high joint linear association (contribution) of the predictor variables (Victim relationship to perpetrator) on disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, given by the  $F(1, 1532) = 96.542; p < 0.05$ . The adjusted  $R^2$  (.076) shows some shrinkage of the unadjusted value (.079) indicating that the model could be generalized on the population. Based on the result, it was concluded that Victim relationship to perpetrator could significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State.

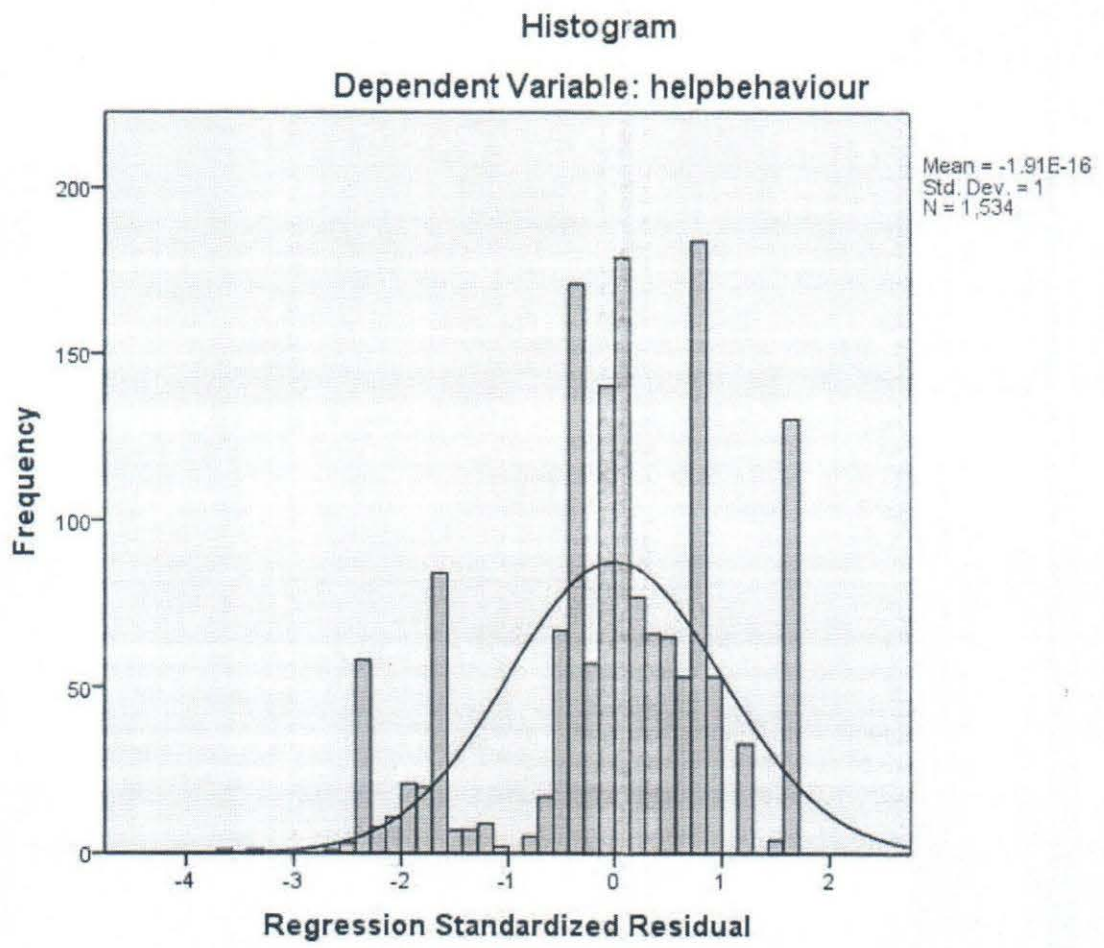
TABLE 4.9

Summary simple linear regression analysis of contribution of victim relationship to perpetrator to disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State

Variables	Mean	Std. Deviation					
Victim relationship to perpetrator	12.3514	5.00095					
Help seeking behaviour	43.1206	10.83352					
Model	Sum of Squares	df	F	R	R Square	Adjusted R Square	Sig
Regression	10665.970	1	96.542	.243 <sup>a</sup>	.079	.076	.000 <sup>a</sup>
Residual	169254.719	1532					
Total	179920.689	1533					

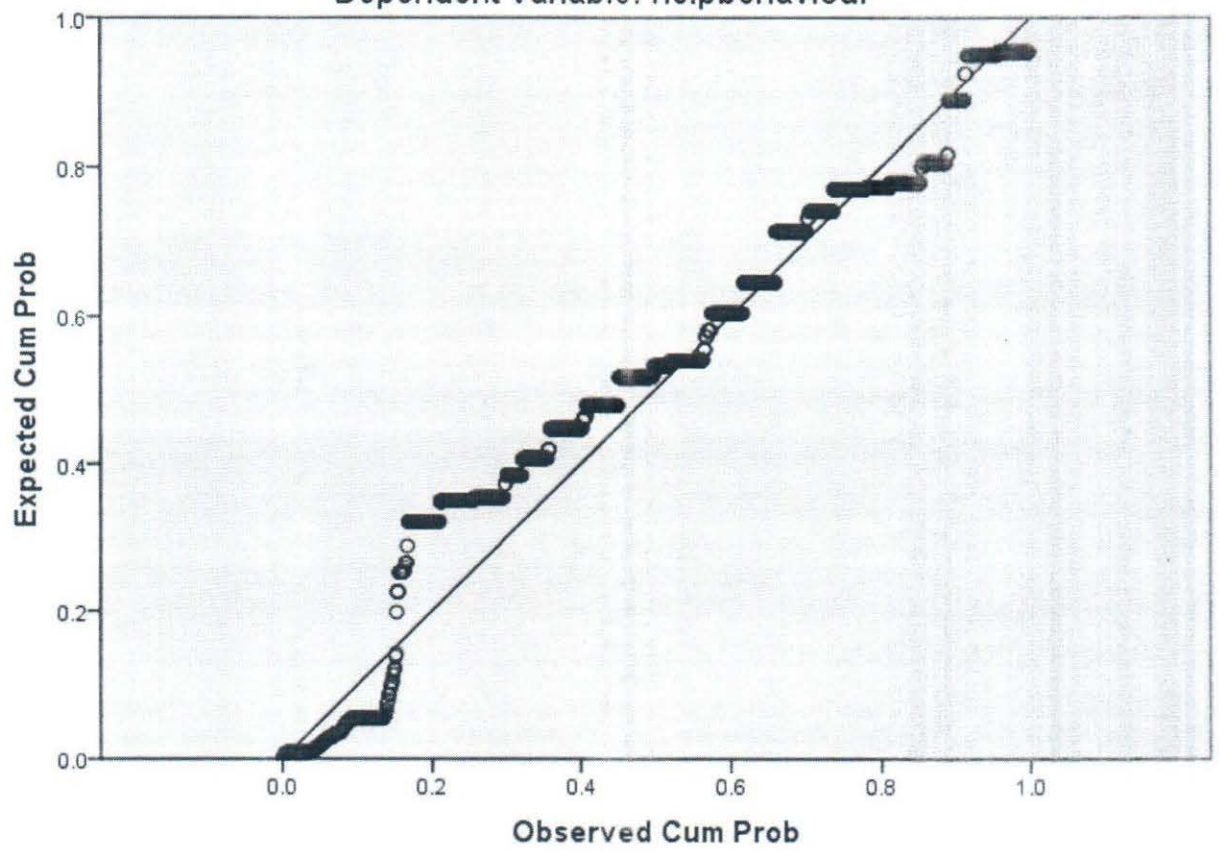
p < 0.05

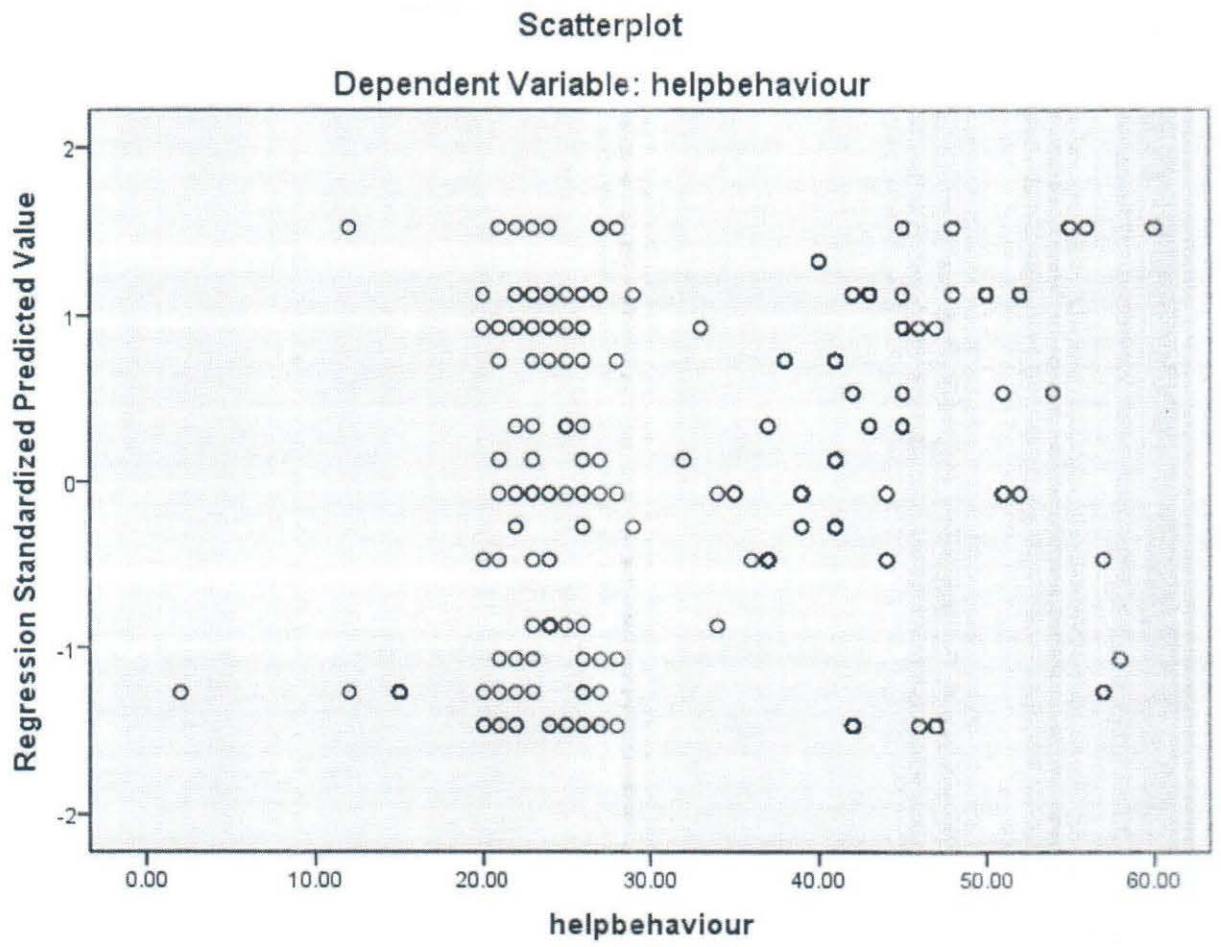




## Normal P-P Plot of Regression Standardized Residual

Dependent Variable: helpbehaviour





### Hypotheses three

Attitude of law enforcement agents does not significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. The independent variable in this hypothesis is attitude of law enforcement agents, while the dependent variable is disclosure and help seeking behaviour of rape victims. Both variables were measured continuously, Inferential statistics involving Simple linear regression statistics was used to test this hypothesis at 0.05 level of significance and the result is presented in table 4.10

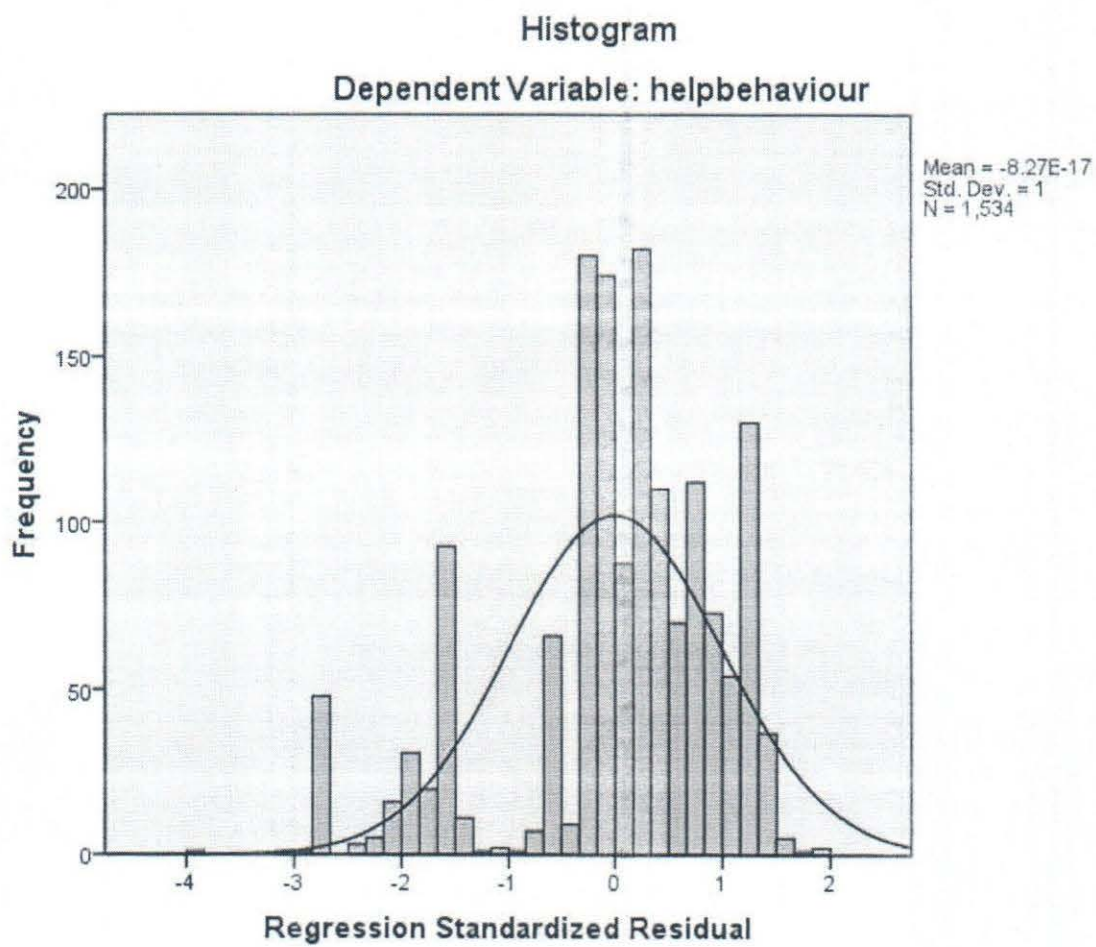
The result of analysis as presented in table 4.10, with graphical illustration in figure 13, 14 and 15 revealed that the R-value of 0.231<sup>a</sup> is significant at 0.05 alpha level ( $p = .000^a < 0.05$ ), therefore the stated null hypothesis was rejected. This implies that there is a significant contribution of Attitude of law enforcement agents to disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. Also, the  $R^2$  -value of .054 implies that 54% of total variance is accounted for by predictor variable (Attitude of law enforcement agents). Furthermore, the regression ANOVA revealed that, there was a high joint linear association (contribution) of the predictor variables (Attitude of law enforcement agents) on disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, given by the  $F(1, 1532) = 22.899; p < 0.05$ . The adjusted  $R^2$  (.051) shows some shrinkage of the unadjusted value (.054) indicating that the model could be generalized on the population. Based on the result, it was concluded that Attitude of law enforcement agents could significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State.

TABLE 4.10

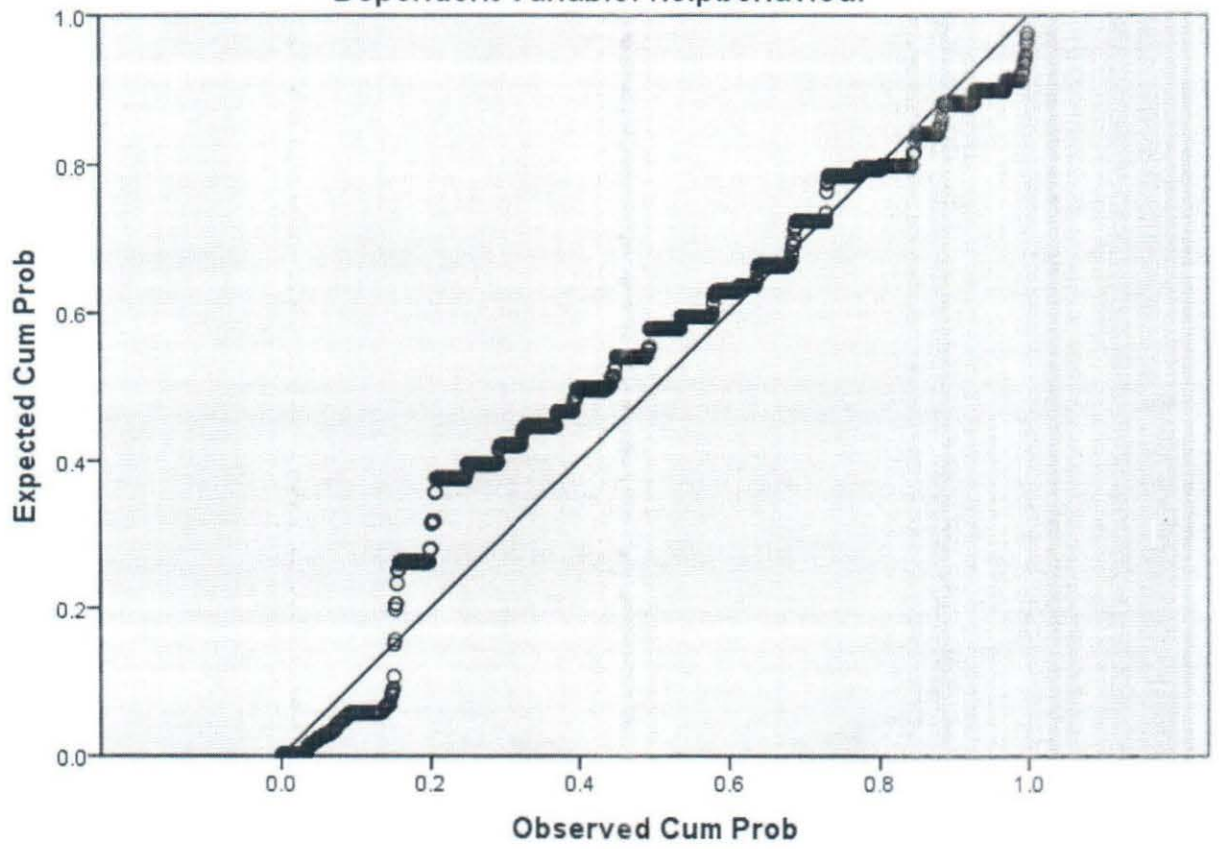
Summary simple linear regression analysis of contribution of Attitude of law enforcement agents to help seeking behaviour of rape victims in Central Senatorial District of Cross River State

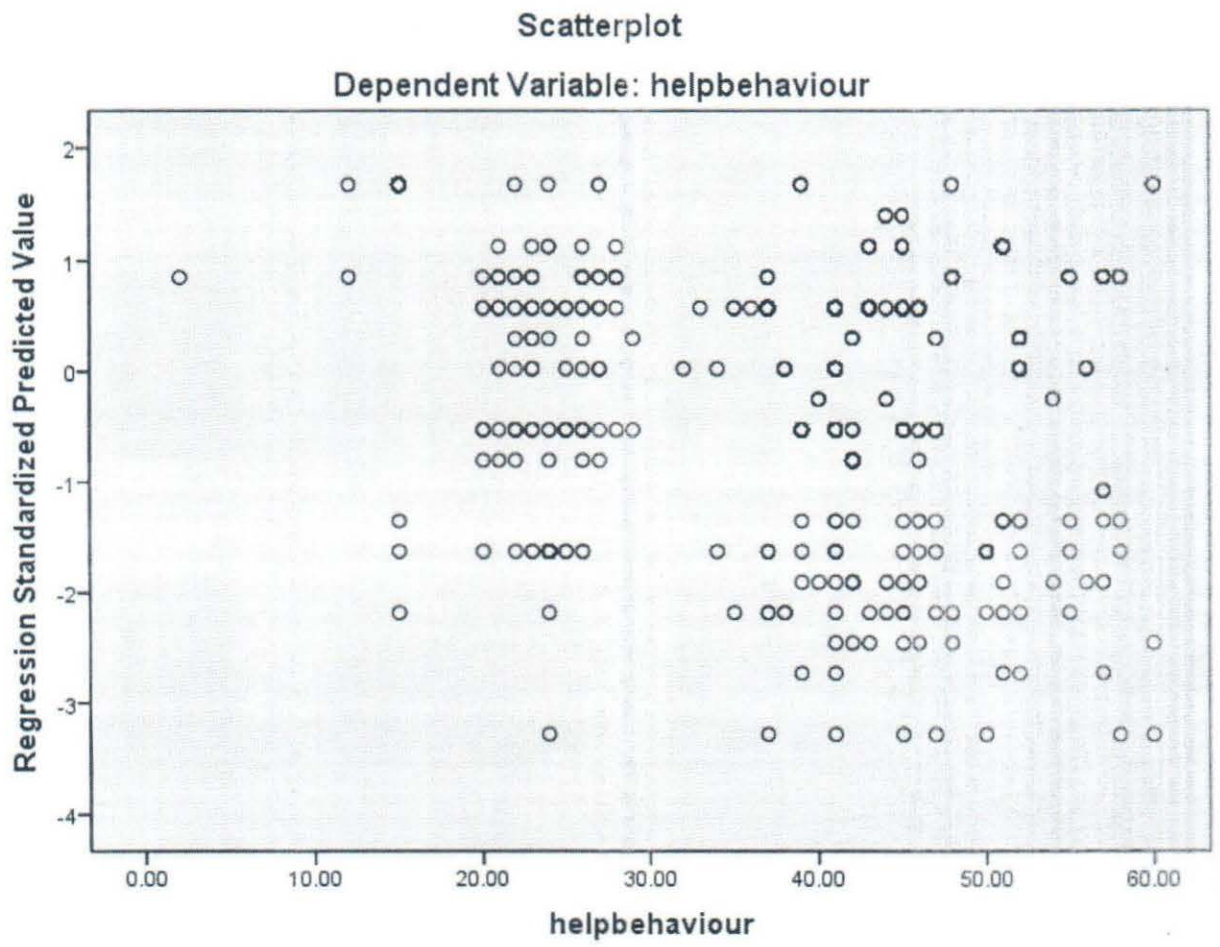
Variables	Mean	Std. Deviation					
Attitude of law enforcement agents	13.9140	3.63291					
Help seeking behaviour	43.1206	10.83352					
Model	Sum of Squares	Df	F	R	R Square	Adjusted R Square	Sig
Regression	2649.703	1	22.899	.231 <sup>a</sup>	.054	.051	.000 <sup>a</sup>
Residual	177270.986	1532					
Total	179920.689	1533					

p < 0.05



Normal P-P Plot of Regression Standardized Residual  
Dependent Variable: helpbehaviour





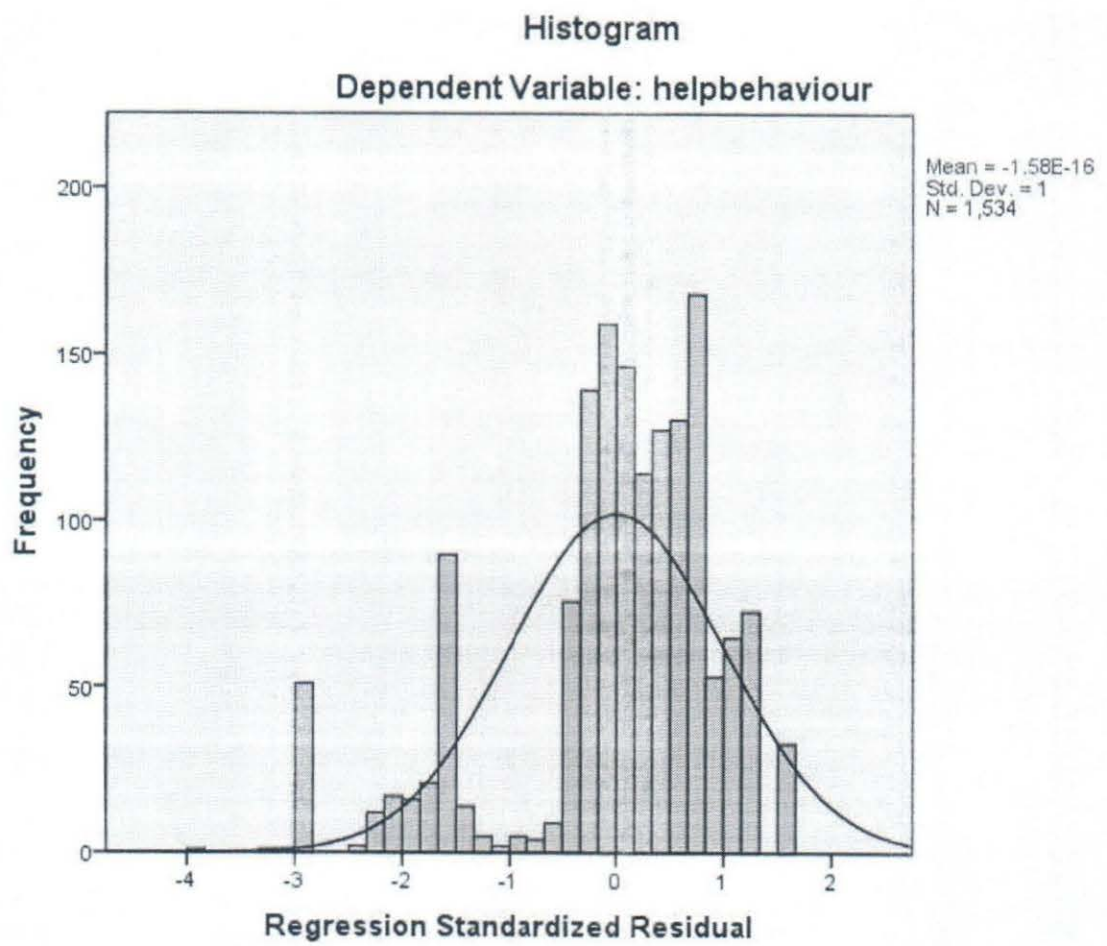


#### **Hypotheses four**

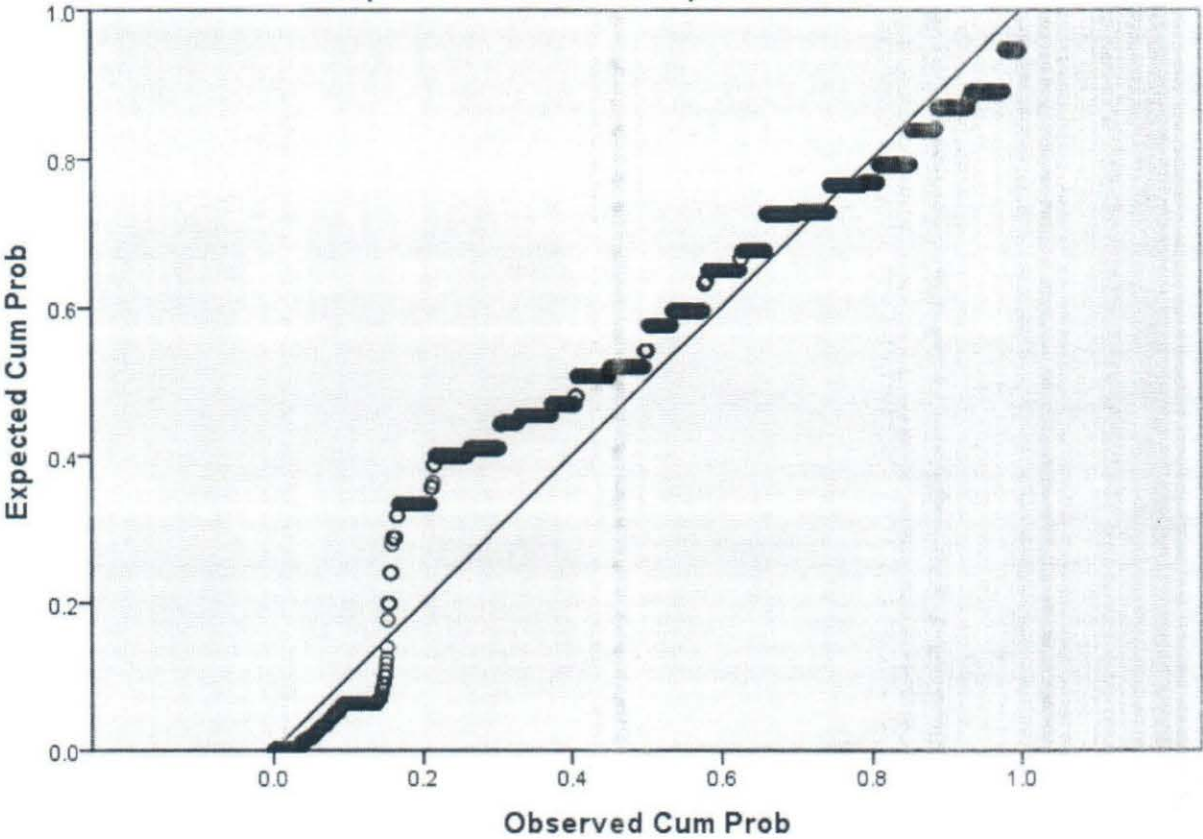
Cultural belief does not significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. The independent variable in this hypothesis is Cultural belief, while the dependent variable is disclosure and help seeking behaviour of rape victims. Both variables were measured continuously, Inferential statistics involving Simple linear regression statistics was used to test this hypothesis at 0.05 level of significance and the result is presented in table 4.11

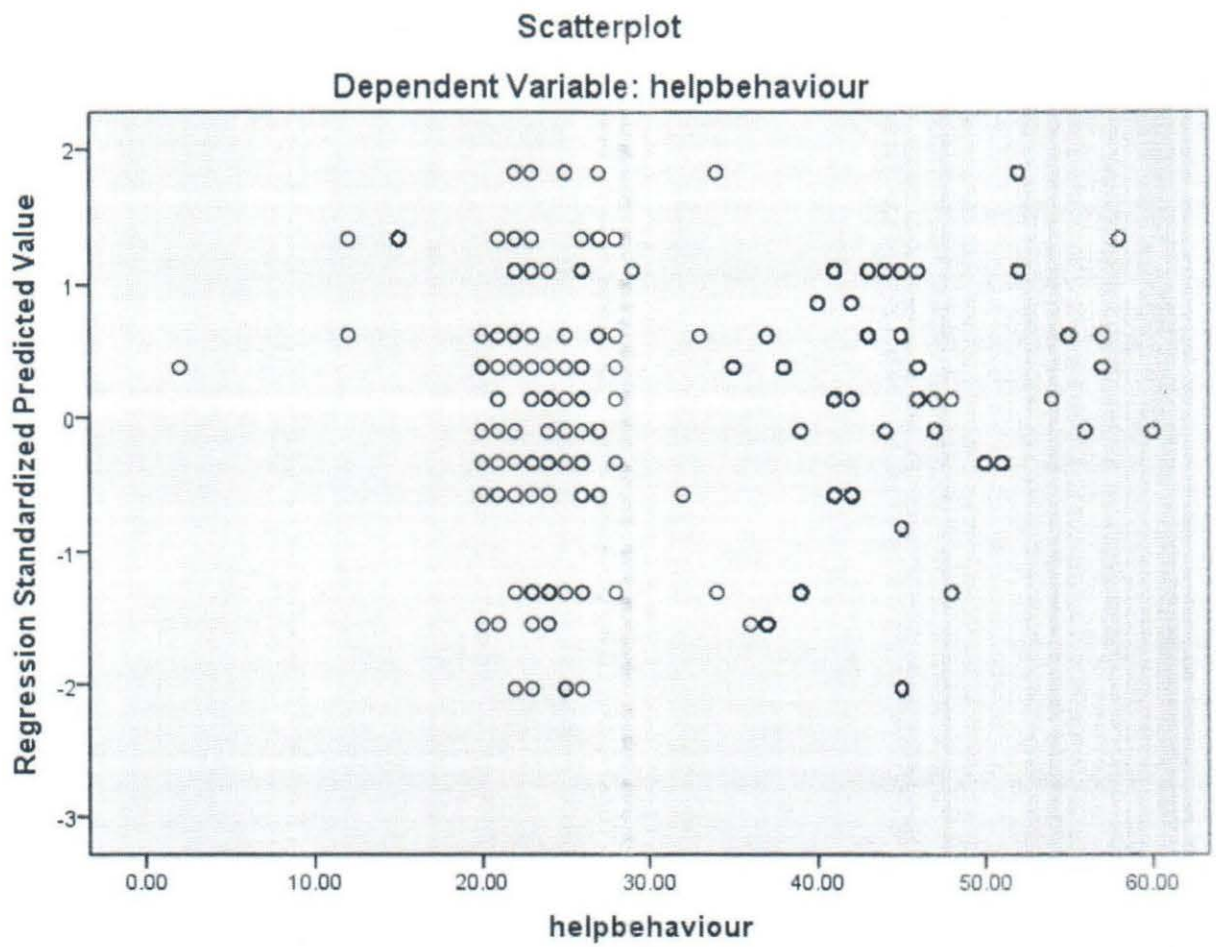
The result of analysis as presented in table 4.11, with graphical illustration in figure 16, 17 and 18 revealed that the R-value of 0.203<sup>a</sup> is significant at 0.05 alpha level ( $p = .000^a < 0.05$ ), therefore the stated null hypothesis was rejected. This implies that there is a significant contribution of Cultural belief to disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State. Also, the  $R^2$ -value of .064 implies that 64% of total variance is accounted for by predictor variable (Cultural belief). Furthermore, the regression ANOVA revealed that, there was a high joint linear association (contribution) of the predictor variables (Cultural belief) on disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, given by the  $F(1, 1532) = 66.136; p < 0.05$ . The adjusted  $R^2$  (.061) shows some shrinkage of the unadjusted value (.064) indicating that the model could be generalized on the population. Based on the result, it was concluded that Cultural belief significantly influence disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State.





Normal P-P Plot of Regression Standardized Residual  
Dependent Variable: helpbehaviour





### 4.3 Discussion of findings

#### 4.3.1 Fear of stigmatization and disclosure and help-seeking behaviour of rape victims

Research findings stigmatization/ disclosure and help-seeking behaviour of rape victims showed that fear of stigmatization significantly predicts disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State, Nigeria. The finding revealed that rape victims find it difficult to speak out and seek help because of how friends and neighbours will treat them. This suggests that shame and public embarrassment are the main reasons rape victims do not disclose or seek help. The study further shows that fear of being ostracized by the community due to the dishonour associated with Rape is responsible for continue silence and poor help-seeking behaviour of rape victim. Other revelations made by this study include that the disclosure of rape incident in most cases leave the person with the feelings of shame and self-suspicion. Rape survivors who fear the disclosure of their status because of stigma and discrimination are willing to hide their status. They think disclosing their status may create a complicated and stressful situation, but it also causes them to lose family support and health care provision (Saki, Kermanshahi, Mohammadi, & Mohraz, 2015).

The blame on rape victims rather than the rapist further explains why rape cases are underreported, and victims hardly seek help. Similarly, the study revealed that the fear of suffering more sexual abuse deepens the culture of silence among rape victims. The finding is in line with UNAIDS and the World Health Organization (WHO), who cited fear of stigma and discrimination as the

main reason people are reluctant to disclose and seek help. Self-stigma, or internalized stigma, has an equally damaging effect on the mental wellbeing of rape victims. This fear of discrimination breaks down confidence to seek help and medical care. Self-stigma and fear of an adverse community reaction can hinder efforts to address the rape epidemic by continuing the wall of silence and shame surrounding the problem. They maintained that self-stigma affected a person's ability to live positively, limits meaningful self-agency, quality of life, help-seeking behaviour, disclosure, adherence to treatment and access to health services. In many contexts, women and girls often fear stigma and rejection from their families, not only because they stand to lose their social place of belonging but also because they could lose their shelter, children, and ability to survive. The isolation that stigma brings can lead to low self-esteem, depression, and even thoughts or acts of suicide.

The finding of this study agrees with that of McCleary-Sillsa, Namya, Nyonid, Rweyemamud, Salvatoryd, and Stevene (2015), who surveyed stigma, shame and women's limited agency in help-seeking for intimate partner violence in Tanzania. The findings revealed numerous socio-cultural barriers to help-seeking, including gendered social norms that accept IPV and impose stigma and shame upon survivors. Because IPV is highly normalized, survivors are silenced by their fear of social consequences, a suspicion reinforced by the belief that women's IPV reporting brings shame rather than the perpetration of violence itself. Similarly, this study's findings are in line with the results of Taddese, Sibhatu, Kebede, and Horacio (2013). They assess the experience of stigma and

discrimination on the psycho-social and health care seeking behaviour of people living with HIV/AIDS (PLHIV) in Arba Minch, Ethiopia. It appears that the magnitude of stigma and discrimination in the area has decreased to a considerably lower level. However, the problem's severity is still being influenced by various factors, including current residence, disclosure status, and community awareness about HIV/AIDS. Stigma and discrimination have come to a level that can be tolerated by most PLHIV that live in this region, especially those who have disclosed their HIV status and were living in urban areas.

This study's findings support the conclusions of Rife (2009), who studied sexual assault, perceived stigma, and Christian fundamentalism. Results indicate a relationship between perceived stigma and specific support sources (clergy, parents, and other relatives), but this relationship is positive. The hypothesized relationship between Christian fundamentalism and perceived stigma was partially supported.

***Responding to why rape victims find it difficult to speak out and seek help, a nurse with the General hospital Ugep submits that:***

*rape cases are unreported because of the fear of stigmatization. She maintained that when rape cases are made public, the victim suffers stigma till death. In order to avoid being stigmatized, victims are satisfied keeping mute about what has happen to them especially when it involves a close family member like an uncle.  
(IDI/Nurse/Ugep/February, 2019)*

***In one of the interview sessions, a nurse who have spent more than 10 ten years in the community posits that:***



*Rape victims hardly report the incident either to health workers or police for possible arrest and prosecution. Because it comes with stigma on the girl and her family, so to prevent the victim and her family from being shamed by the public, the family of the rape victim prefers to keep the information within the family circle. (IDI/Nurse/Ugep/February, 2019)*

***Another respondent puts it thus:***

*Stigmatization is one of the reasons rape victims do not speak up. I have seen a girl passing and her peers were pointing hands at her saying she has been raped. If it is an adult, the person will be scared to report because people will start pointing fingers at her or even label her "raped girl". (IDI/Records/General Hospital /February, 2019)*

***Another respondent who have come across 5-6 rape victims provided detailed explanations how stigma influence disclosure and help seeking behaviour of rape victims:***

*Stigmatization is actually one of the main reason rape cases are under-reported in this community. People stigmatize rape victims because they actually believe it is their fault. People feel that a raped child is spoilt and later in future that is used against her especially when she wants to get married. The perception among our people is that rape victims are not descent enough. This has led to a couples being separated when the husband discover that his wife had been raped before they got married. (IDI/Nurse/General Hospital /February, 2019)*

***The opinion of a serial rape victim who was rape when he was 7 years old by his neighbour, who was in her early twenties during an IDI session summed up this perception thus:***

*Do you think people report rape cases? No, they do not, like me when I was raped severally I never reported to anyone, not even my parents. What made you not to report the incident to anyone even your parents? I was thinking people will think I am a bad boy, the issue of stigma and fear of what my parent will think or say. Generally, people do not report rape cases because of stigmatization, they feel if they confide in anyone. The person might end up blowing it up. So its difficulty for people to speak up when raped.*

#### **4.3.2 Victim relationship to perpetrator, disclosure and help-seeking behaviour of rape victims**

The result of analysis on this variable shows that, victim relationship to perpetrator does significantly predict disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria. This result indicates that, the desire of victim's family to maintain existing cordial relationship with the perpetrator influences disclosure and help seeking behaviour of rape survivor. It was observed in the course of this study that, victims' family finds it difficult to report a perpetrator when he or she is close to the family in order to avoid ridiculing the person. The study noted that, in order to avoid shame and public embarrassment rape victims do not open up and seek help, when the perpetrator is a close family member. The study also revealed that parents of raped victim find it difficult to come out publicly to report such cases when the perpetrator is a member of the family. Parents of raped victim find it difficult to come out publicly to report such cases when the perpetrator is a member of the family.

This finding is in consonance with that of Mont, Woldeyohannes, Macdonald, Kosa, and Turner (2017), who agrees that women sexually assaulted by a current or former intimate partner were less likely than those assaulted by another known assailant or a stranger to disclose and seek help. The study concluded that women sexually assaulted by current or former intimate partners utilized services offered by sexual assault and domestic violence treatment centres differently than those assaulted by other known assailants and strangers.

***A psychologist working in Eja Memorial Hospital Itigidi also supported the above claims during an IDI session, by revealing how victim relationship to perpetrator influences disclosure and help seeking behaviour of rape victims:***

*Rape by uncles, aunties, brothers, cousins, niece, nephew, close friends and acquaintance is far more rampant in this community than any other type of rape. In most cases, when such ugly incident occur, family members conspire together to keep it from the ears of the public, because of the shame that it would attract. However, where it becomes necessary medical help is provided for the victim. The respondent narrated an incident where a girl that was close to a Rev Father was raped by the Rev. Father. The Rev Father asked her to spend weekend with him, and she got raped by Rev Father. The Mother of the girl never reported to any authority because she wants to maintain the relationship with the Rev Father.*

***A community leader in Ekori who have had complaints and handle rape issues that involves relatives in the community is of the opinion that:***

*It is difficult especially when the perpetrators is a family member of the victim. If the perpetrators is punished, it will still be the same family that will carry the burden*

*of taking care of him in detention. The respondent gave an instance of a man who raped his step daughter, the family members warned members of the community that if they hear anyone talking about the incident, such person will be reported to the police.*

***Another participant during an interview provided explanation that justify why rape incident that involves close family members is hardly reported:***

*Mostly is the fear of unknown, for instances, one of the cases was a father and a step-daughter because they don't want the whole family to be embarrassed. Because it is an incest taboo and they try to conceal it to save the family's name. Do you think when a relative is the perpetrator of the crime, the family members disclosed the crime to the public? No, unless one of the members unconsciously say it out.*

#### **4.3.3 Attitude of law enforcement agent and disclosure and help-seeking behaviour of rape victims**

The findings of hypothesis three revealed that attitude of law enforcement agent does significantly predict disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria. This implies that, the rigorous requirement involved in producing authentic evidence of rape such as getting a medical report, as well as a police report within the shortest possible interval of any rape incident, makes disclosure and help seeking difficult. The study shows that the fear of being accused by police for consenting to the sexual intercourse with the rapists, make rape one of the most underreported crime . The study revealed that fear that the police may be unwilling to make an official report due to insufficient evidence makes rape

survivors not to report the case. The study observed that culture of silence is aggravated among rape victim because of the humiliation and intimidation suffered by victims in the hands of police.

It was further revealed that dismissive attitude within the police and inaccessible justice system makes it difficult for rape victim to report the incident to the police. Also the study showed that rape survivors finds it difficult to report the matter because such cases are stagnated in court with numerous adjournments and later dismissed on technical ground by the court. According to Campbell (2006), If a victim experiences harsh treatment from law enforcement when attempting to file a report, he or she may also experience secondary traumatization and have long-term negative consequences. Such consequences include victim's feelings of self-blame, shame, and self-doubt (Campbell et al., 2001).

Researchers and feminist commentators have long noted that rape victims often receive negative treatment from law enforcement officers. Some officers doubt victims who do not meet the criteria of an "ideal victim" because they might have worn revealing clothing or been intoxicated when the rape occurred (Sleath & Bull, 2012). Such attitudes were researched by Schuller and Steward (2000), who found that law enforcement officers viewed intoxicated complainants more negatively than non-intoxicated complainants. Officers' skepticism of victims who do not meet the ideal victim criteria because of the victim's history or behaviour may lead to additional interrogation and prodding of victims by law enforcement (Page, 2007). This additional interrogation causes

victims to feel revictimized, as though they did something wrong or are under attack (Jordan, 2004)

This is in agreement with Rich and Seffrin, (2012) who studied police interviews of sexual assault reporters in United States. The study revealed that sexual assault is underreported in the United States. Survivors are often reluctant to make police reports for various reasons; one is fear of revictimization by criminal justice professionals. Conversely, police officers often lack skills for interviewing crime victims. Post-traumatic stress reactions among victims can exacerbate the problem. Although some victims prefer female interviewers, it is not known whether they are more skilled. A sample of 429 police officers completed a written survey testing their rape myth acceptance and knowledge of how to interview rape reporters. A significant relationship between rape myth acceptance and interviewing skill was discovered. Although officer gender was related to interviewing skill, the effect was mediated by rape myth acceptance. Specific officer behaviours related to high rape myth acceptance were identified. Implications for selection of police to conduct victim interviews were discussed in this study.

Also Mennicke, Anderson, Oehme, and Kennedy, (2014) study law enforcement officers' perception of rape and rape victims. The study was aimed at assessing law enforcement officers' perceptions of rape and rape victims. The study adopted cross sectional survey research design. One hundred and forty nine (149) respondents were selected among law enforcement officers to respond to surveys which included a definition of rape measure, an unfounded rape claims

measure, and the Rape Myth Acceptance Scale-Revised (RMA-R) measure. . Although most officers scored low on the RMA-R—indicating that they did not adhere to myths about rape most officers also responded with incomplete definitions of rape and inaccurate estimates of the number of false rape claims. Multivariate analyses indicated that officers' open-ended responses did not predict their scores on the RMA-R scale. It is argued that the RMA-R alone does not accurately measure officers' understanding of rape. Officers need ongoing training on the legal elements of the crime, the necessity of sensitivity with victims, and research-based statistics on the prevalence of rape.

Ahrens, (2006) carried out a study on being silenced: The impact of negative social reactions on the disclosure of rape. The study revealed that rape survivors who speak out about their assault experiences are often punished for doing so when they are subjected to negative reactions from support providers like law enforcement agencies. These negative reactions may thereby serve a silencing function, leading some rape survivors to stop talking about their experiences to anyone at all. The study examined this worst case scenario, focusing on the qualitative narratives of eight rape survivors who initially disclosed the assault but then stopped disclosing for a significant period of time, this study sought to provide an in-depth description of how negative reactions silenced these survivors. The study highlighted three routes to silence; one, negative reactions from professionals led survivors to question whether future disclosures would be effective; two, negative reactions from friends and family

reinforced feelings of self-blame; and three, negative reactions from either source reinforced uncertainty about whether their experiences qualified as rape.

Christiansen, Bak, and Elklit, (2017) study on secondary victims of rape revealed that rape is often a very traumatic experience, which affects not only the primary victim (PV) but also his/her significant others. The study examined the impact of rape on 107 secondary victims, including family members, partners, and friends of male and female rape victims. The study revealed that many respondents found it difficult to support the PV and that their relationship with the PV was often affected by the assault. Furthermore, the sample showed significant levels of traumatization, and it was estimated that approximately one quarter of the respondents suffered from post-traumatic stress syndrome (PTSD). Degree of traumatization was associated with a more recent assault, higher efforts to support the PV, recurrent thoughts about having been able to prevent the assault, a lack of social support for the respondent, and feeling let down by others. The respondents were generally interested in friend, family, and partner-focused interventions, particularly in receiving education about how best to support a rape victim.

***A community leader, while supporting the position of this study, provided an explanation why most rape victims find it hard to report the incident to the law enforcement agents.***

*In her opinion, rape victims do not open up on their ordeal because the police or law enforcement agencies makes you feel like, it's all your fault.*

***An excerpt from the view of a participant on how attitude of law enforcement officer influence disclosure and help seeking behaviour of rape victims reveals that:***



*Even when the cases are reported to the police, the police will be the ones to discourage the complaint from taking the case further. The police will ask you to forget about the case that it will not go anywhere. Police officers prevent victims from taking up rape cases because they extort so much money from the rapists and ensure that the case did not see the light of the day.*

***Another participant that was interviewed noted this thus:***

*We all know that, the police are in business and the highest bidder will always wins, except you meet an IPO who wants to use his innate conscience and allow justice prevail. Do you think the attitude of the police discourages people from reporting? Yes it is a strong reason because most victims are poor and the police get money from the perpetrators and eventually the case dies off.*

***Another respondent added as follows:***

*That the female IPO's handles rape cases better than their male colleagues. The moment a rape case is reported to a female IPO she gets very tenacious till the victim is punished. The respondent noted that delay in courts processes and police investigation in rape cases discourage victims from speaking up. Partly it is a factor, because the frustration the victims' family faced, the money involved and the rescheduling of the court actually made them to abandon the case.*

#### 4.3.4 Cultural belief and disclosure and help-seeking behaviour of rape victims

The findings of hypothesis four revealed that cultural belief does significantly predict disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria. The study revealed that rape is one of the most underreported crime, which victim hardly seek help because culturally it is seen as an inevitable occurrence. It was also revealed that, the belief that rape survivors deserve what they got speaks volume of why victims find it difficult to report to appropriate authority. Furthermore, it was observed that perceiving men as being in control and a dominant force in relationship makes female rape victim not to disclose and seek help when they are raped. Women seeing themselves as objects of sexual pleasure makes it difficult for them to report and seek help when raped. The study also revealed that rape cases are underreported and victims stay away from seeking help because of the belief that nobody will listen to their story. It was further highlighted that the belief that it is the survivor's responsibility to prove that his or her actions and reputation did not facilitate the rape explains why raped victims hardly report the incidence.

Research reports on cultural belief, disclosure and help seeking behaviour of rape victims are still scantily available. This might be attributed to the fact that researchers have not directed much attention in this area. However, Ogunbode, Bello and Ogunbode, (2014) noted that cultural belief can predict disclosure and help-seeking behaviour of rape victims either positively or negatively. In societies with male-dominated sexual relationships and values,

victims are less likely to report to avoid breaking traditional norms and stigmatization, while in cultures where punitive measures are enforced, the reporting is much improved. According to Okoro (2011), cultural beliefs are generally used to justify rape and inequality by evoking traditional beliefs and practices about how women and girls should be treated. Okoro (2011), in his studies revealed that it is a common cultural belief among many ethnic groups that: Without premarital sexual intercourse, boys are bound to have small testicles, suffer from pimples, have difficult erection and not be able to perform well when married. Girls, on the other hand are bound to have small breasts, experience early menopause, painful menstruation and painful nipples when breastfeeding their babies.

***One of the participants at the IDI session explains how cultural belief influences disclosure and help seeking behaviour of rape victim***

*You hardly see a women admitting that she was raped by her husband that even if any women reports or open up, the community will dismiss you that you don't know what you are saying. In our society we believe that when you are married you totally belongs to your husband and you can't say no to his sexual needs.*

***Another respondent while explaining the influence of cultural belief on disclosure and help seeking behaviour of rape victim, noted that:***

*For a married woman to report a rape case against the husband implies that she is seeking for separation. She gave an instance where a woman reported that she was raped by her husband but nobody took her serious rather People were busy abusing the woman. Women do not speak out because of cultural beliefs and ignorance.*

## CHAPTER FIVE

### SUMMARY, CONCLUSION, AND RECOMMENDATIONS

#### 5.1 Summary

The study examines socio-cultural factors influencing disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State, Nigeria. Specifically, the study

1. Determine the extent to which fear of stigmatization influences disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State
2. Establish the time to which victim relationship to perpetrator affects disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State
3. Investigate how the attitude of law enforcement agent influences disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State
4. Examine whether cultural belief influences disclosure and help-seeking behaviour of rape victims in Central Senatorial District of Cross River State
5. To provide a scientific explanation to the study, four hypotheses were formulated. They are:
6. Fear of stigmatization does not significantly influence disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State

7. Victim relationship to perpetrator does not influence substantially disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State
8. The attitude of law enforcement agent does not significantly influence disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State
9. Cultural belief does not influence substantially disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State

The study adopted a cross-sectional survey research design. This design's choice derives from its relative importance in the collection of accurate information from respondents at relatively low cost and greater efficiency. The study area is the Central Senatorial District of Cross River State. The study population consisted of nine hundred and forty-one thousand, seven hundred and seventy-four (941,774) people. The breakdown of the people across the six local government areas showed that the population of people residing in Abi, Local Government Area are 144,802 people, Yakurr, – 195,338, Ikom, – 162,383, Etung, – 80,196, Boki, – 186,611, and Obubra – 172,444.

The study adopted a stratified sampling technique, simple random, and purposive sampling technique. The instruments of data collection were questionnaire and In-depth interview. Primary and secondary sources of data collection were adopted in this study. The generated data were statistical analysis

using the simple linear regression technique. The statistical analysis revealed that:

1. Fear of stigmatization does significantly predict disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State
2. Victim relationship to perpetrator does significantly predict disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State
3. The attitude of law enforcement agent does significantly predict disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State
4. Cultural belief does significantly predict disclosure and help-seeking behaviour of rape victims in the Central Senatorial District of Cross River State

## 5.2 Conclusion

Rape remains a silent epidemic and a severe public health issue that is primarily underreported and unrecognized, with many victims concealing their abuse experiences. Despite the severe harmful effects of rape, most victims do not seek professional help. Although help-seeking behaviours differ across regions of the world, this study's findings show that victims of rape in the Central Senatorial District of Cross River rarely report their experiences to formal sources, and some do not seek help at all. The study identifies various psychosocial and cultural variables influencing disclosure and help-seeking

behaviour of victims in the Central Senatorial District of Cross River State, Nigeria. The study's findings revealed that fear of stigmatization, victim relationship to perpetrator, attitude of law enforcement agent, and cultural belief are substantial socio-cultural factors predicting disclosure and help-seeking behaviour of victims in the study area.

Fear of stigma, experiences of stigma and acts that suggests discrimination were recurring issues suffered by rape victims in selected communities in the Central Senatorial District of Cross River State. This unfriendly attitude of community members has resulted in the delay or refusal of rape victims to disclose and seek help from health workers and law enforcement agents. The study also revealed that the victim relationship to the perpetrator is another factor that predicts disclosure and help-seeking behaviour of rape victims. It was observed that rape from close family members is far more prevalent than strangers, and it is the most traumatic and humiliating type of rape. This is because the incidents are not reported to law enforcement agents. After all, it involves a close family member. In addition to victim relationship to perpetrator, the research shows that law enforcement agents' attitude also predicts disclosure and help-seeking behaviour of rape victims. Disclosure and help-seeking for rape are notably low in communities where rape is an ordinary or considered a regular act. Help-seeking among rape victims expose victims to a regarded as crucial for deemed crucial to improving victims' coping skills, increasing their self-esteem and confidence and reducing social isolation and self-blame (Ofstehage, Gandhi, Sholk, Radday, & Stanzler, 2011).

### 5.3 Recommendations

The following recommendations were put forward: There is a need for a multi-dimensional approach, but above all, there must be awareness and a proactive campaign against rape. At the same time, an enabling environment must also be created to ensure that rape victims can come out to report the offence.

Support should also be given to developmental associations, civil society, human rights organizations, national councils, ministries, youth centres, mosques and churches to confront this problem. Accurate information and data must be available on the scope of the problem and how to face it.

Law enforcement agents must show empathy to rape victims and must not be judgmental by seeing victims as the cause of what happens to them. The police's investigative capacity especially needs to be enhanced through the introduction of forensic techniques of evidence gathering. The Criminal Procedure Law also needs to be amended to accommodate the peculiarity of rape cases.

Support should be provided to rape victims. These include getting men involved in finding a lasting solution to this crime in such areas as the police departments, hospitals and district attorney's offices. This way, men can be trained and given the expertise to deal sensitively with the physical and emotional issues involved in winning the victim's cooperation and successfully prosecuting the perpetrator.



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## APPENDIX I

## LETTER TO RESPONDENT

Department of Sociology,  
Faculty of Social Sciences,  
University of Calabar,  
Cross River State.  
Date.....

Dear Respondent,

I am a post-graduate student of the above named institution conducting a study on Socio-cultural factors influencing disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria. You have been selected for this study, which is a pre-condition for the researcher to be awarded a Ph.D Degree in Medical Sociology. I solicit your cooperation in completing this questionnaire to facilitate the successful completion of this study. You are free to express your views as well as the degree of your agreement as desired by ticking [✓] in the space provided. Please note that there is no right or wrong answers as all response will be treated with utmost confidentiality and used absolutely for academic purpose.

Your understanding and cooperation is highly appreciated.

Warm regards,

Eteng, Womi Samuel

*Researcher*

## SECTION A

### Socio-demographic data

Instruction: The questions in this section are designed specifically to gather personal information about the respondent. These questions are asked in order to make more valid inferences in relation to the findings of this research. Kindly read through each of the questions and tick [✓] the appropriate option in the boxes provided.

1. Gender: (a) Male [ ], (b) Female [ ]
2. Age: (a) Below 30 years [ ], (b) 31 – 40 years [ ], (c) 41 – 50 years [ ], (d) 51 years and above [ ]
3. Highest level of Education: (a) FSLC [ ], (b) GCE/SSCE [ ], (c) NCE/OND/Diploma [ ], (d) HND/B.Sc./B.Ed./B.A [ ], (e) M.Sc./Ph.D [ ]
4. Name \_\_\_\_\_ of \_\_\_\_\_ your community:.....  
.....
5. Occupation: Farmer [ ], Teacher [ ], Civil Servant [ ], Student [ ], Artisan [ ], Trader [ ] Others specify.....
6. How long have you been residing in this community?: 1 – 5 years [ ], 6 – 10 years [ ], 11 – 15 years [ ], 16 years and above [ ]

## SECTION B

### SUBSTANTIVE ISSUES

This section relates to some of the perceived fears demonstrated by rape victims that influences their disclosure and help seeking behaviour. Please indicate from the following options the extent to which you agree or disagree to the following items. Using the following options as a guide: SA = Strongly Agreed; A= Agreed; D= Disagreed; SD= Strongly Disagree

#### SUB-SCALE 1

#### FEAR OF STIGMATIZATION

ITEMS	SA	A	D	SD
Rape victims find it difficult to speak out and seek help because of how they will be treated by friends and neighbours				
Rape survivors do not disclose and seek help because of shame and public embarrassment				
Fear of being ostracized by the community due to the dishonour associated with rape is responsible for continue silence and poor help seeking behaviour of rape victim				
A sense of guilt or self-blame about their role in the rape assaults provoke victims not to report the rape incident and seek help				
The blame on the victim of rape rather than the rapist is one of the reasons rape cases are underreported and victim hardly seek help				
Fear of more abuse is responsible for silence after one is raped				

#### SUB-SCALE 2

#### VICTIM RELATIONSHIP TO PERPETRATOR

ITEMS				
The desire of victim's family to maintain existing cordial relationship with the perpetrator influences disclosure and help seeking behaviour of rape survivor				

**SUB-SCALE 4**  
**CULTURAL BELIEF**

ITEMS				
Rape is one of the most underreported crime, which victim hardly seek help because culturally it is seen as an inevitable occurrence				
The belief that rape survivors deserve what they got is the reason why victims find it difficult to report to appropriate authority				
Perceiving men as being in control and a dominant force in relationship makes female rape victim not to disclose and seek help when they are raped				
Women seeing themselves as objects of sexual pleasure makes it difficult for them to report and seek help when raped.				
The belief that nobody will listen to their story is the rationale behind underreporting and help seeking behaviour of rape victim				
The belief that it is the survivors responsibility to prove that his or her actions and reputation did not facilitate the rape explains why raped victims hardly report the incidence				

**SUB-SCALE 5**  
**RAPE**

ITEMS				
Date rape are hardly reported to appropriate authorities because of the personality of the person involved				
Victims of gang rape finds it difficult to report the matter as well as seek help because of the shame and humiliation				
Rape survivors of anger or retaliatory rape finds it difficult to open up and seek help because of the indifference attitude of the police				
Power rape is hardly reported because the prevalence of cultural belief				
The culture of silence surrounding rape and victims poor help seeking behaviour is as result of fear of being stigmatized				
Rape is on the increase because of poor reporting and help seeking behaviour victims				

### APPENDIX III

## IN-DEPTH INTERVIEW GUIDE ON SOCIO-CULTURAL FACTORS, DISCLOSURE AND HELP SEEKING BEHAVIOUR OF RAPE VICTIMS

### Preliminary Information

#### Introduction

Interviewer will introduce herself as Eteng, Womi Samuel

**Purpose:** I am carrying out a field work as part of my Thesis for a Ph.D Degree in Medical Sociology, from the University of Calabar, Cross River State.

**Topic:** Socio-cultural factors influencing disclosure and help seeking behaviour of rape victims in Central Senatorial District of Cross River State, Nigeria

**Assurance of confidentiality:** Confidentiality of all interviewee is assured.

**Interview recorded:** It is my intention to use a tape recorder to record this interview. The reason for recording the interview is to ensure that the notes I take are accurate. It is also my intention to provide you with a copy of my notes to ensure that the information recorded is a true and accurate reflection of the interview

**Duration:** The expected duration of the interview is between 30-45 minutes

**Conduct of the interview:** The interview will be conducted in four parts

- a. Fear of stigmatization
- b. Victim relationship to perpetrator
- c. Attitude of law enforcement
- d. Cultural belief

#### a. FEAR OF STIGMATIZATION

- (1) Rape victims find it difficult to speak out and seek help because of how they will be treated by friends and neighbours?

Probe for what are some of those treatments meted to rape victim that influences their disclosure and help seeking behaviour

Probe for factors that promote such treatment?

- (2) Is rape a taboo in your community? Yes [ ], No [ ]

Probe further to know what the community reaction is to rape victim

Do you think that the community reaction influences disclosure and help seeking behaviour of rape victims?

#### **b. VICTIM RELATIONSHIP TO PERPETRATOR**

- (3) The desire of victim's family to maintain existing cordial relationship with the perpetrator influences disclosure and help seeking behaviour of rape survivor.

(i) Probe further to unveil what the family suspect will happen when they report rape case involving a member of the family

(ii) Probe yet again to know whether avoidance of shame and public embarrassment is part of the reason why rape victims do not open up and seek help, when the perpetrator is a close family member

- (4) Parents of raped victim are quick to come out publicly to report such cases when the perpetrator is a domestic workers

(i) Probe further to find out?

#### **c. ATTITUDE OF LAW ENFORCEMENT**

- (5) The victims fear of being accused by police for consenting to the sexual intercourse with the rapists, make rape one of the most underreported crime

(i) Probe further to identify those attitude of law enforcement that influences disclosure and help seeking behaviour of rape victim

- (6) The culture of silence is aggravated among rape victim because of humiliation and intimidation suffered by victims in the hands of the police

(i) Probe to find out why police humiliate and intimidate rape victims?

#### **d. CULTURAL BELIEF**

- (6) Rape is one of the most underreported crime, which victim hardly seek help because culturally it is seen as an inevitable occurrence

Probe to know why rape is consider an inevitable occurrence

- (7) Women seeing themselves as objects of sexual pleasure makes it difficult for them to report and seek help when raped.  
Probe further to know why women see themselves as objects of sexual pleasure

**Conclusion of interview**

Thank interviewee for granting the interview

Assure of confidentiality.

Ask if they want a copy of the aggregate results of the study.