

**ENVIRONMENTAL AWARENESS ON SUSTAINABLE DEVELOPMENT FOR RURAL
SETTLEMENT**

(A CASE STUDY OF KUJE AREA COUNCIL ABUJA)

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DECLARATION

I Dare John Dayo with registration No. PGD/GEO/2003/2004/272 declare that this project was carried out by me under the supervision of Professor .J.M. Baba in the department of Geography University of Technology Minna.

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CERTIFICATE

This thesis entitled "environmental awareness on sustainable development for rural settlement. A case study of Kuje Area Council FCT Abuja" by DARE JOHN DAYO (PGD/GEO/2003/04/272) meets the regulation governing the award of post graduate Diploma, Environmental management, Federal University of Technology, Minna, is approved for its contribution to scientific knowledge and literary presentation.

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ABSTRACT

This study is aimed at evaluating the Environmental Awareness on sustainable Development for Rural Settlement in Kuje Area Council. It is an environmental awareness to identify and analyses the positive and negative impacts on Rural Settlement on environmental quality and the Socio – economic lives of the study area.

It was set to identify areas adversely affected by environmental problems resulting in deteriorating living standards for the majority of people-especially rural dwellers. Also to identify and analyze the main problem areas that militated degradation. This study seeks to examine the soil deforestation, soil erosion, water pollution, air pollution, desertification and overgrazing, finally to analyse the Socio-economic impact on the people at large.

Questionnaires were developed and self administered and responses were received from randomly selected household, substantial parts of the data were collected through verbal interviews with the indigenes. Also field investigation and observation were conducted and pictures were taken to form part of the primary sources of data. Secondary information was obtained from already existing data about the study area and other published materials. The data were subjected to various analytical processes.

The analysis on the study took into consideration a number of parameters such as: To arouse people's awareness and curiosity about the environment and encouraged active participation in resolving environmental problems. Information also revealed the possible consequences that their actions and decision may have both now and in future on resources.

Investigations also revealed that awareness measures were grossly inadequate and completely neglected.

The results revealed that these activities had tremendous negative impact on the environment as manifested on physical condition of the area.

The analysis on the major implementation problems, which were encountered non-challance and illiteracy level of the people. Main problem areas include poor financial conditions, information were not dissemination properly to the grass root on environmental issues, lack of awareness and conservation education.

The analysis on the socio-economic impact revealed that there were significant impacts on the lives of the people in the study area. Presently indigenes inherited only deforested, highly degraded land .

The findings were briefly summarized and recommendations were dram from the summary of finding. To cap this research work, conclusions were briefly discussed.

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CHAPTER ONE

1.1 General Introduction

Human History is said to be "Largely written in terms of struggle between man and nature over the terms of man's existence (Barkley and Seckled 1972. P.I). Which encompassed all discipline relationship, but in refers to Geography in particular. The statement attribute environment on which are pivoted all economic activities.

Environmental was in existence even before the creation of man, creation is a unique act of God and visible sign of God and visible sign of God's presence. God has created the universe and all what is in it.

Man's subdued his environment and physical resources that enable him to secured a comfortable living to him by creation. Man's have dominion over every living thing upon the earth Genesis 1:28.

But, the Victory has turned out to be an illusive issue. The negative impacts of man's activities on the environment now stand as grave dangers to human survival and well being.

According to the Holy books God created the universe and all what is in them not for us to mismanage but God loves all and directed us to conserve them for our survival and survival of our younger generation yet unborn.

Environmental conservation education was first coined in 1965 in United Kingdom. The first approach was the conference on Human Environment and Development held in Stocholm Sweden in 1972. It is Recommended during the conference that the secretary general, the organization of the United Nations system especially UNESCO and other international agencies concerned should after consultation and agreement, take its necessity step to establish an international programme multidisciplinary in approach in school and out of school, encompassing all level of education and directed towards the general public in particular citizen living in rural and urban areas youth and adult alike. With a view of educating him as the simple steps he might take within is means, to manage and control his environment.

- ii. To increase their awareness of the economic political, social, cultural, technological and environmental forces that fosters or impedes sustainable development.
- iii. To enable people recognize the possible consequences that their actions and decision may have both now and in future on resources.
- iv. Identify areas adversely affected by environmental degradation causing, deforestation, soil erosion, pollution and e.t.c.

1.4 JUSTIFICATION OF THE STUDY.

Environmental conservation education and awareness is therefore a key to a sound environmental management and sustainable development. When you're aware of any problem sooner or later you will find a solution to the problem, than when you are not educated and being aware. Conservation education help to address the fundamental issues that causes damage to the environment and raising awareness about plants and animals.

It is a known fact that all rural development programmes share a multiplicity of objectives, which are geared towards improving the living standard of the rural population. It has become clear that the operations of these programmes invariably involve not only the tapping of renewable and non-renewable resources but also the transformation of the natural environment.

1.5 STUDY AREA

Kuje Area Council was created on the 15th of October 1984 after the creation of Federal Capital Territory in 1976. The former Rubochi Area Council in which headquarter was in Rubochi but now in Kuje.

As one of the six Area Council that make up the Federal Capital Territory, it is located adjacent to Airport Road – Gwagwalada, Kuje is the food basket of Abuja.

The final relocation of government in 1991 from Lagos to Abuja brought a massive influx of people into the Area Council. The population of the Area Council has grown

astronomically and can be estimated at 500,000 people. The original settlers namely: Gade, Sauka, Wuru – Sundaba, Angwan – gede and Hausa – Fulani.

Kuje Area Council is administered by a chairman elected through popular vote. The type of housing write are of traditional round compound type. There are fire secondary four government and one private seminary, here are sixty – seven primary school in Kuje one in each of the villages and towns with the total intake of 9,000 pupils.

Kuje is bounded in the north east by latitude $9^{\circ} 39' 47''\text{N}$ and longitude $7^{\circ} 16' 38''\text{E}$, in the north-west by $9^{\circ} 39' 47''\text{N}$ and $7^{\circ} 13' 23''\text{E}$, in the south-west by $9^{\circ} 39' 47''\text{N}$ and $7^{\circ} 17' 05''\text{E}$ and in the south east by $9^{\circ} 39' 4''\text{N}$ and $7^{\circ} 16' 15''\text{E}$.

1.6 DEFINITION OF CONCEPTS

- i. Environment: Literally is the total surrounding which encompasses every thing both living and non-living things within it. Broadly it has four major components i.e HYDROSPHERE (water) BIOSHERE (plants and animals) ATMOSPHERE (air) LTHOSPHERE (land) or the ecosystem.
- ii. Conservation: Simply means the wise use of resources of good management of resources or economy of resources.
- iii. Biodiversity: Variety of plants and animals or variety of natural life.
- iv. Sustainable Development: Is development without destruction.

World commission on environment and development (WCED) describe sustainable development as “the development that meets the need of present without compromising the ability of the future generation to meet their need”. All developmental projects must take environmental assessment and analyse the ability of such project and consider the earth resources. Compare and contrast before embarking upon the project.

MAP OF NIGERIA SHOWING F.C.T

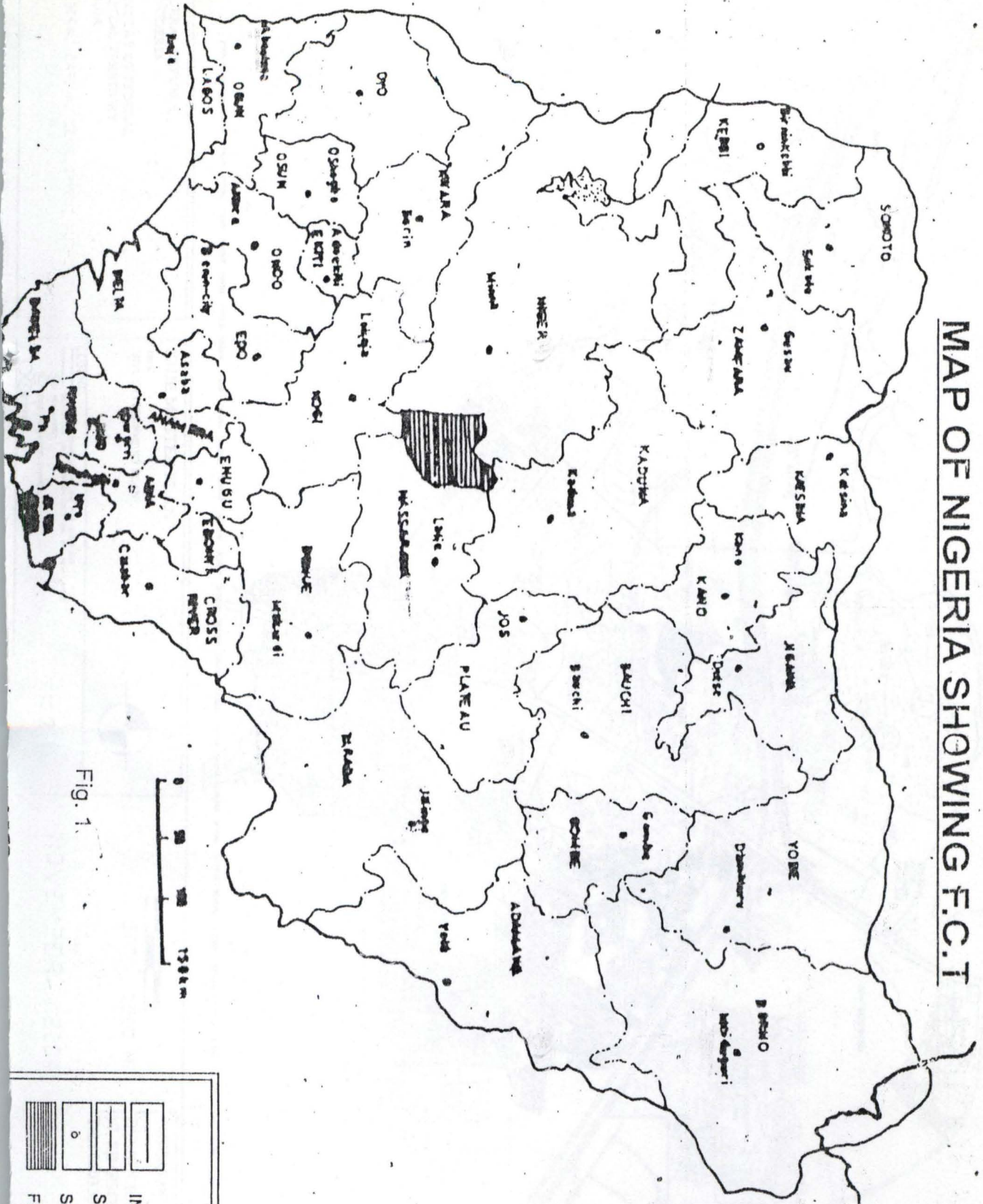
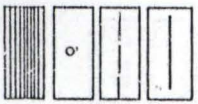


Fig. 1



INTERNATIONAL BOUNDARY
 STATES BOUNDARIES
 STATES CAPITALS
 FEDERAL CAPITAL TERRITORY

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Human have been polluting their water supplies for centuries, but problems of contamination and water scarcity are becoming increasingly serious because there are more of us using the same supplies. Most large-scale mining, industrial, farming and forest clearing activities result in some form of water pollution, which eventually affects humans (UNEP/GEMS 1991)

In recent years, many warning have been issued in many regions of the world- in both developed and developing countries – that deterioration in air, water, soil and other natural resources threatens the quality of the environment and of life including human life. Many conservation groups now consider the urgency of such warning, (World Bank 1975).

Environment is being given serious and a continual attention as it affects almost if not all aspect of human existence. In other words, we exist because the environment exists, the environment can exist without us but we cannot exist without the environment.

There is the need therefore to see that we manage the environment well and make sure that we keep it as clean as possible and for sustainable development.

2.2 MEANING OF ENVIRONMENTAL EDUCATION

Environmental Education: - It is the education that brings about good management of resources and protection of the environment and make people to be aware of what threaten the well being of the environment and have the

knowledge attitude, commitment, skills and will to prevent present and future environment problem.

Environmental conservation education is regarded as a permanent process in which individual and the community gain awareness of their environment and acquire the knowledge, values, skills, experiences and also determination which will enable them to act-individually and collectively to solve present and future environmental problem (UN Conf. 1977).

The term environmental education may be used in the term of "Education about the Environment" or "Education for the Environment" it is an inter-disciplinary subject, which cut across all subjects in the school curriculum, and could also be use in non-formal sector.

2.3 THE CONCEPT OF SUSTAINABLE DEVELOPMENT

Baba (1992), received that the roots of the population of the concept of sustainable development may be traced to the Brundtland commission Report, titled, Our Common Future, which was launched in London in April, 1977, and formally presented to a special session of the United Nations General Assembly in October of the same year. The report brought to light the relationship that exists between human economic activities and environment quality. It also considered other issues with respect to the future of these relationships as a way of exposing fundamental challenge to human survival, (Baba, 1992).

Sustainable development as defined by Brundtland et al, quoted in Bukar (1989) and Baba, (1992) is "Development which meets the need of the present generation without compromising the ability of the future generation to meet their own needs". Embedded in this definition is the responsibility that rests on man to ensure that while, he extracts environmental resources for his own survival and well being now he should not allow his own actions to jeopardize the survival and well being of the generations that are to come after him. To

do that it has to be through processes of judicious and crisis-free resource Utilization.

This concept does not only have concern for the environmental quality but also for the welfare of the worlds poor and also of "the integrity and stability of the economic system and the imperative of social justice" (Earth watch, 1987) quoted in Baba (1992). It also recongnized that "poverty, environmental degradation and population growth are mextricately related and that none of these fundamental problems can be successfully addressed in isolation"

Sustainable development emphasizes development strategies that are geared towards the proper management of natural and human resources, as well as physical assets, for "increasing long term wealth and well-being" but rejects policies and practices "that support current living standard by depleting the productive base, including natural resources and then leave future generations with poorer prospects and greater risks than our own" (bid)

In his own disruption of how a sustainable society should be, lester Brown (1981) quoted in Carter, (1988), sees a sustainable society as "enduring, self-reliant and less vulnerable to external forces". He optimistically asserts that this can be accomplished with regulations, efficient use of resources, conservation, and a stationary dispersed population with less effluent lifestyle. From the forgone conceptual views, Development project should have their focus on achieving an environmentally sustainable production of goods and services as a matter of policy.

These views alluded to above have given us a mile dimension of the conditions that ought to be met in order to achieve sustainable development in any society. This brings us to the concept of sustainable of the world's environmental awareness.

2.4 THE STATE OF THE WORLD'S ENVIRONMENTAL AWARENESS

Human history is said to be "largely writing in terms of struggle between man and nature over the terms of man's existence (Barley and seekler, 1972) This simple statement of fact summarizes a complex set of processes and relationships which have been the preoccupation of all disciplines, but of Geography in particular, the statement attitudes to the age -long contest between man and the natural environment on which are pivoted all economic activities.

Man's activities has turned out to be an illusive mirage. The negative impacts of man's activities on the environment now stands as grave dangers to human survival and well -being (like a boomerany that bounces back to hunt or destroy-its thrower). There is now a deepening realization that technology has a limit after all, that limit being determined by how far a technology helps to destroy or preserve the primary stage of its operations- i.e. the environment. According to Er. Hlich, et al (1970) "while the intelligent application of technology fosters human well being directly, a reducible but not removable burden of environmental disruption by the technology undermines well being. This negative burden includes the direct effects of technology's accidents and efficient on human life and health.

The famous UN-sponsored international conference at Stockholm (Sweden) held in December, 1972 set the ball rolling as a concerted effort on the part of the international community to raise awareness about the danger which human activities pose to the environment and ultimately to man himself. An outcome of that initiative has been a series of global institutional arrangements on environmental issues. Every June 5 of every year is marked out as Environmental Day which was inaugurate in 1972, for the promotion of global environmental awareness. There was also the creation of the united

Nations Environmental Programme (UNEP) headquartered at Nairobi, Kenya in the monitoring the state of world's environment. Also there is offing on the platform of the UN a major Earth summit on population and environment scheduled to take place in Brazil in June, 1992

On the African continent evidence of this new awareness has been manifested through the Cairo Plan Started in 1985 and which has become a major forum for cooperation among African nation on matters affective the environment.

2.5 THE NIGERIAN / ENVIRONMENT

It is highly diversified with respects to such components do climate (Oguntoyinbo 1978). There are two broad regional aggregations are commonly recognized. These are the Southern forest ecosystem and the northern grassland ecosystems. An ecosystem is a community of plants, animals, micro-organism (or biotic componefits) non- living elements such as soil, climate, surface and ground water e.t.c. which are bound together by an intricate web of relationships (Erhlich, et al)

An ecosystem at its national climaxes is normally characterized by an intrinsic state of balance or equilibrium through a delicate budget of material and energy flows in and out of the system. The removal or drastic alteration of any of its component parts through either anthropozenic or physical forces would however normally initiate a process of chain reactions that ultimately leads to the breakdown of the system, or a state of dis-equilibrium that state of disequilibrium is tantamount to environmental deterioration, and a deteriorating environment, among other features is unable to perform optimally such beneficial public service functions as chemical soil balance, pollination of crops, natural pest control, regulation of disease vectors e.t.c. (Erhlich et al)

To conclude this summary of attitudes to environment, it is pertinent to examine and summarize environmental viewpoints in Western industrialized societies. This is because today, Western attitude and philosophies dominates international institutional such as United Nations and Agencies, the World Bank, the European community and dictate the policies of individual western nations that are the donors of foreign aid to African Countries, whether, foreign and is received directly from western government or channeled through non-governmental Organizations. Western attitude to the environment and influenced by the philosophical viewpoints in those societies used, 1992, Sarre and Smith, 1991

1. Environmental determinism: this view point states that there is an unavoidable cause and effect relationship between man and nature, in which human actions (pollution, deforestation, interference with surface drainage) result in environmental degradation e.g air, water and soil pollution. Erosion and flooding loss of biodiversity. The environment is a linking factor physically and culturally in that our agriculture and life style are determined by constant imposed by our physical environment.
2. Environmental Positivism; this philosophy is based on belief in man's supremacy over nature. Man has acquired the technology to overcome all environmental limitations including the ability to withstand, repair and manage any damage to the earth resulting from man's willful or unwitting abuse and from adverse technological fall out or side effects. At the moment, virtually all frontiers or limits to human existence have been conquered notably outer space and the deepest sea.
3. Utilization or Hedonism; A remnant of the ancient Greek philosophy. Epicureanism, this view argues that the ultimate goal of human effort

should be pleasure, hence pleasure should be the fundamental criterion for deciding how to manage the environment although this is a clear and democratic principle, the calculation of pleasure and pain has been highly controversial, one method being the cost benefit analysis approach of economists.

2.6 ENVIRONMENTAL CONSERVATION EDUCATION STRATEGY IN KUJE AREA COUNCIL ABUJA

Long-term task of environmental conservation awareness is to foster and reinforce attitude and behaviour compatible with new ethics, acquiring for all natural resources and other non-renewable resources.

Society must promote values that support the ethics and discourage those that are with sustainable way of life; information must be disseminated through formal and informal education so that needed actions are widely understood (caring for the earth a strategy for sustainable living). The role of Public awareness cannot be emphasized. It is a fact that most of the people including the policy makers are not aware that conservation of renewable resources and non-renewable resources amount to sustainable development. They do not know it may yield the greater sustainable benefit to present generation while maintaining its potential to meet the needs and aspirations of the future generation.

Environmental Education has to plan his programme to address certain environmental issues.

In planning conservation project or programmes strategy certain parameters must be taken into consideration

1. Project title
2. Location

3. Date/duration
4. Objectives
5. Justification
6. Funding organization
7. What is the problems (identify the problem)
8. Identify the target audience

2.7 BENEFIT OF ENVIRONMENTAL CONSERVATION EDUCATION

Education in this direction is very necessary. The benefit to be derived from environmental conservation education include: -

1. Total change of attitude and behaviour and the acquiring of new skills.
2. People tend to have greater awareness of sensitivity to the surroundings.
3. It brings about a better understanding on how one can depend on natural resources.
4. It's bringing about deeper concern about natural resources and environment.
5. Willingness to people to become personally involved in protecting the environment.
6. People will be aware of the physical, biological human and component of the environment hold their interest.
7. Healthy environment
8. Sustainable intensive environmental conservation education and awareness the changes enumerated above is no doubt achievable.
9. Implication of not having sound conservation education/awareness are:-

2.8 LACK OF ENVIRONMENTAL AND CONSERVATION EDUCATION IN KUJE AREA COUNCIL ABUJA

Lack of environmental conservation education and awareness in Kuje is a serious problem. That could only be solved through education.

Lack of environmental conservation education and awareness has led to so many problems such as:

1. Destruction of biodiversity
2. Unplanned development
3. Poor land utilization and management
4. Indiscriminate Dumping of toxic wastes
5. Lack of municipal waste management, which bring about poor sanitation
6. Water pollution
7. Destruction of ecosystem
8. Air pollution
9. Disasters e.g. flood erosion
10. Hunger
11. Poverty and

CHAPTER THREE

METHODOLOGY

The sample survey in this research work is to provide for the least necessary data based on the population of the sample size sample frame sample unit and sampling techniques.

3.1 Sample Size

Considering the overall numbers of structure development micro economic of the physical conditions of project site in terms of physical damage or improvement on the land, water, vegetation and other element of the ecosystem.

3.1.2 Sampling frame

The sample frame adopted in this research work is the least record of environmental awareness problems such as in the degradation of our natural biodiversity and measure to conserve the features deterioration or improvement of the environment in Kuje Area Council Abuja.

3.2.3 Instrumentation and data collection. There two types of data for this research work. These are primary and secondary data and the method for collection of the data is known as infrastructure.

3.2.1 Collection Of Primary Data

The primary data are the data or information collected from the field by the researcher. This involves the direct contact with the related areas the instruments used in this project work are physicals survey, questionnaire and interview.

- a. Physical Survey: This method is based on monitoring and observation of the phenomena of research work.
- b. Interview: This method involves, the meeting with the local government officials of the development control department, and farmer, villager, literate and illiterate

- c. Questionnaire: These are printed questions to be answered by the local people and individuals writing the sampling unit of the sampling size. The method of design of the questionnaire will be both an open-ended and close-ended questionnaire.

3.2.2 Collection of Secondary Data.

This basically are the data collected from tests, journal, manuals, media photograph, past records

- A. Internet System: This is the use of internet services and facilities of literature and journey.
- B. Literature Review: This method is based on review of past and related papers texts and printed materials environmental awareness, degradation, internet and community library facilities (2002 version) and maps from Kuje Area Council.
- C. Presentation of Data:- The and results of the data analyzed will be presented in fibular form and graphical or visual displays formats such as pre-chart, in the study region. Bar-chart and histogram, for land uses identified in the study region.

3.2.3 Expected Benefits

At the end of the research work, the expected benefits shall include the following:-

1. The creative learning and realization of solution to the problems of environment problems via in the area of degradation.
2. This project is expected to develop a technical base for the management of activity in the rural area and revitalization environment for physical, social and economic gain.
3. The project at the end will services as base for environmental awareness and sustainable development in Nigeria rural environment in term of emergency preparedness in the risk areas and the city at large.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 INTRODUCTION.

This chapter is about the presentation of the result and discussions. The result of the questionnaires and discussion are presented here. Suggestion to environmental presented in this chapter.

4.1 FIELD INVESTIGATION AND OBSERVATION

- Drainage System / Soil Erosion
- Level of development and existing infrastructure
- Physical condition on land
- Land use with special consideration of things like Residential, Commercial, e.t.c. and existing Conservation the techniques

The investigations were in the form of physical observations and interview with the Resident. All investigation and observation were done with reference to the existing data Kuja Area Council Headquarter.

4.2 LAND USE PRACTICES

The indigenes of Kuje and surrounding villages are predominantly farmers. Most parts of land usually be a forest. Reserve under open wood land vegetation with tree species like Isobenia, Doka, Monotes, Kerskingi and e.t.c. the sadhy, the loose and shallow nature of the soil points to the fact that a good and effective sound conservation were devised through environmental hazard such as flood, deforestation, drought population increase (shown on plate Nos 1/2

BUSH CLEARING

As stated earlier, the area which is used to be under a forest reserve of open woodland Savanna, but was cleared mechanically using bulldozer. Mechanized method of land clearing saves time and it is appropriate for clearing large tracts of land for the purpose of

farming expectedly when it is under a thick forest or vegetation. It equally has its own disadvantages especially when the operation is not carefully and properly done. It could initiate gravious environmental problem such as soil erosion through removal of topsoil, depleting soil fertility through the removal of organics matter and excessive compaction of topsoil.

The topsoil clear along with trees and other rubbish, leaving behind thin layer which makes easily washed down slope, open gulves towards the streams.

4.3 EXISTING FACILITIES

Generally, the condition and quantity of the existing facilities in Kuje and it's environs are not satisfactory and grossly inadequate for the ever growing population in the area.

There is one major access to Kuje via Airport road- Gwagwalada. There are access road to residential plot and farmland. At the time of this study, 40% of the roads were in badly degraded state having pronounced street and gully erosion taking place.

SEWAGES / SOLID WASTE MANAGEMENT

The field survey reveled that in Kuje there is no central sewage system. The liquid waste being generated are discharged through the use of Soak away / Septic tank by few people that have the facilities.

In most cases, the greatest volume of such waste are left following on the ground and in uncovered pits. The solid waste management in te area is not properly managed, since these is no central deposit points. However what is evident is the indiscriminate refuse dumping and burning of solid waste, which constitute a health hazard.

LAND DEGRADATION AND OTHER ENVIRONMENTAL PROBLEMS

The few drainage system available are not covered while the majority of the roads have no drainage system at all. The terrain of the land slope towards the streams that traverse the ccomplet and breath of the area. This indicates that water flows freely down the stream and soil is washed down the slope into the streams. Investigation revealed that out of the 40 respondents, only 5% had soil erosion problem before the deforestation of the

woodland forest, while 87.5% of them had soil erosion problem after the deforestation (see Table: 4; below)

Table 4.1

Summary of the environmental problem experience by the farmer in Kuje Area

Council

Environmental problems	No of Respondents	Response to problem before deforestation	% of Response	Response to problems after deforestation	% of Response
Soil erosion	40	5	12.5	35	87.5
Loss of Vegetation	40	-	-	40	100
Soil compaction	40	-	0	10	25
Wild (bush) fire	40	25	62.5	-	-
Wild animals	40	18	45	6	15
Water logging	40	8	20	22	55

SOURCE: FIELD RESEARCH

- Loss of Vegetal cover

From field observation, about, 90% of the woodland was cleared off vegetation leaving very few trees standing with a few shrubs and grasses. Investigation revealed that 37.0% of the field was built-up 42.5% was farmland, 7.0% was covered with shrubs and only 3.75% was covered with tree.

Table 4.2 Assessment of Vegetal cover

Vegetal Cover	Quadrant %	Quadrant 2%	Quadrant 3%	Quadrant 4%	Average
Trees	1.0	1.0	5.0	8.0	3.75
Shrubs	5.0	5.0	8.0	1.0	7.0
Farmland	60	50	40	20	42.5
Grass	2.0	7.0	10	20	7.0

Built-up Areas	3.2	3.7	3.7	4.2	37.7
	100	100	100	100	100

Source: Field Research

4.4 SOCIETAL ATTITUDE TO THE ENVIRONMENT ISSUE

From the summary of the questionnaires one can easily see that conservation environmental resources and awareness is totally lacking in both schools and community despite the numerous environmental clubs we have within both society and the school. Most of the members of the community don't know how the activities affect the environment and they are willing to learn and protect their environment. From the observation made so far, the farmers have noticed the change in their yield and had only attributed it to the fact that the lands are fired and would hardly support any agricultural activities. Asked if they were ever informed of it their actions impact on the environment all the members of the community claimed they were never visited by any one to inform them but they have been listening to some programmes from the radio informing them of how to protect the environment and how to cultivate successfully. They also claimed to have heard a lot of government campaigned about bush burnings. From the questions answered by the people of the community, it was not that they have been hearing about the crusade on the protection of the environment and had never seen the benefit. People claimed that most of the organization in the Area Councils concerned about the environment were handicapped and could not extend their activities to fellow community member. They never had any means of learning about conservation. It is against this background that the strategic for environmental awareness and sustainable development were to be developed for the Area Council in general.

4.5 ENVIRONMENTAL CONSERVATION EDUCATION USING COMMUNITY

Participation in Kuje Area Council of F.C.T. when you're part to building a house or planting a tree you will never allow it to fall down or destroyed by any mean. People must

TABLE 3

Population projections of the planning area based on 1991 national population commission statistics (Annual growth rate: 4%)

S/NO	YEAR	BASE (1991) AND PROJECTED POPULATION OF THE PLANNING AREA (KUJE TOWN & ENVIRON)	BASE (1991) AND PROJECTED POPULATION OF KUJE AREA COUNCIL
1	1991	10.048	61.329
2	1992	10.450	63.782
3	1993	10.868	66.333
4	1994	11.303	68.987
5	1995	11.755	71.747
6	1996	12.225	74.616
7	1997	12.714	77.974
8	1998	13.223	81.093
9	1999	13.752	84.337
10	2000	14.302	87.710
11	2001	14.874	91.218
12	2002	15.469	94.867
13	2003	16.088	98.622
14	2004	16.732	102.568
15	2005	17.401	106.671
16	2006	18.097	111.938
17	2007	18.821	116.376
18	2008	19.574	121.051
19	2009	20.357	125.872
20	2010	21.171	130.907
21	2011	22.018	136.143
22	2012	22.899	141.588
23	2013	23.815	147.252
24	2014	24.771	153.142
25	2015	25.762	159.268
26	2016	26.792	165.639
27	2017	27.864	172.265
28	2018	28.979	179.156
29	2019	30.138	186.322
30	2020	31.344	193.775

Sources: (i) FCT Digest of Statistics (and generated Projections there from)

(ii) Analytical Report on Demographic & Amenity Survey of the FCT 1999. Ministry of the Federal Capital Territory & National Population Commission (NPC).

(iii) Annual growth Rate (for FCT) = 4%

TABLE 4

Annual population projections for both Kuje Area Council and the Planning Area based on 1991 National Census and Amenity Survey data.

S.NO	YEAR	POPULATION OF KUJE AREA COUNCIL AND ANNUAL PROJECTIONS (1991 NATIONAL CENSUS)	POPULATION OF KUJE AREA COUNCIL AND ANNUAL PROJECTIONS (AMENITY SURVEY DATA)	POPULATION OF THE PLANNING AREA AND ANNUAL PROJECTIONS (AMENITY SURVEY DATA)
1	1999	58,612	57,292	13,280
2	200	60,722	61,961	14,362
3	2001	62,908	67,011	15,533
4	2002	65,173	72,472	16,799
5	2003	67,519	78,387	18,168
6	2004	69,949	84,775	19,649
7	2005	72,467	91,684	21,250
8	2006	75,076	99,156	22,982
9	2007	77,779	107,232	24,855
10	2008	80,579	115,972	26,881
11	2009	83,480	125,424	29,072
12	2010	86,485	135,646	31,441
13	2011	89,598	146,701	34,003
14	2012	92,842	158,657	36,774
15	2013	96,184	171,588	39,771
16	2014	99,647	185,572	43,012
17	2015	103,234	187,086	46,517
18	2016	106,950	202,334	50,308
19	2017	110,800	218,824	54,408
20	2018	114,789	236,658	58,842
21	2019	118,921	255,946	63,638
22	2020	123,202	276,806	68,824

Sources: Analytical Report on Demographic & Amenity Survey of the FCT, 1999

(ADAS Report)

Table 5 Nature of Residency (Residing Status) of Sampled Population of the Planning Area

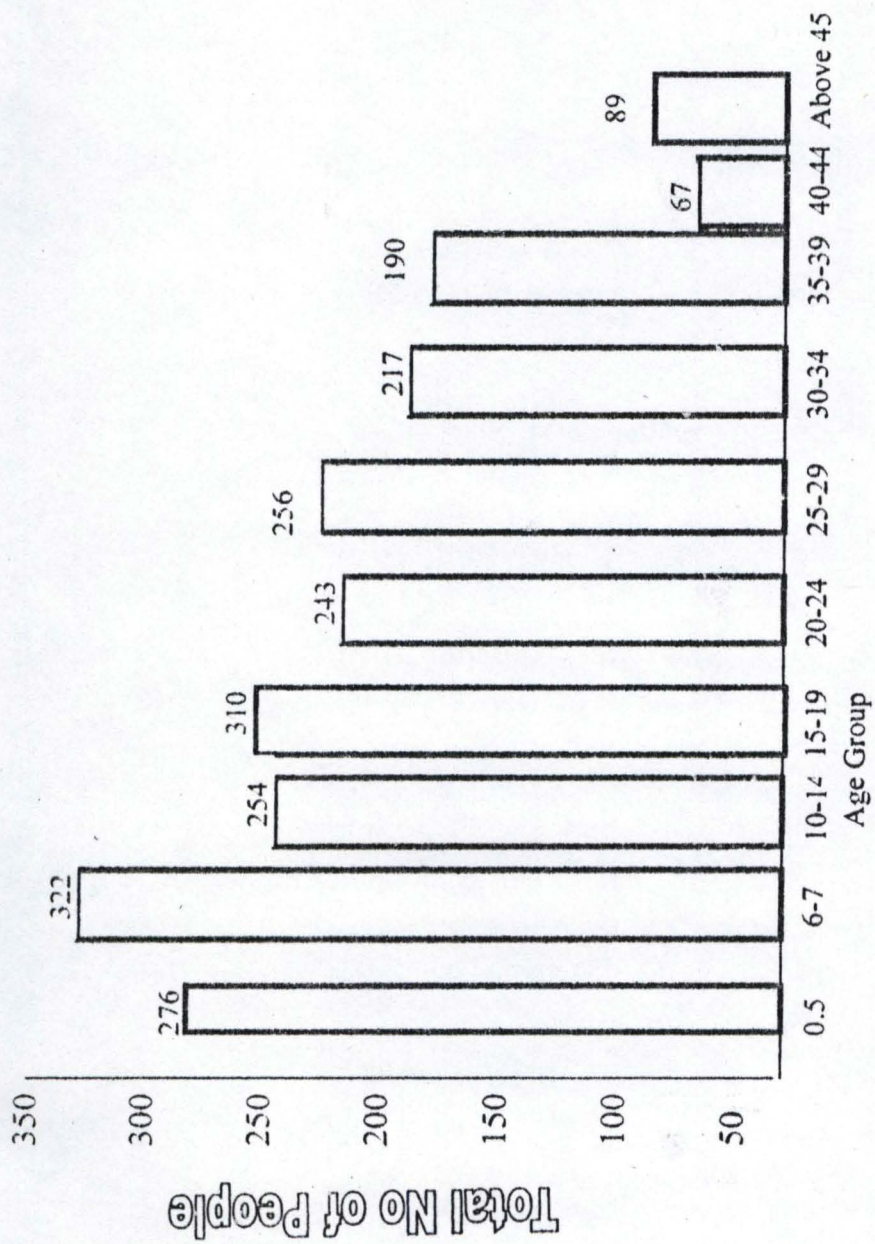
Residing Status	No of people	% of Total
Permanent	1587	70.85
Temporary	597	26.65
Occasional	56	2.50
TOTAL	2240	100

Source: Field Survey, 2001 – 2003

Table 6 Age Distribution of Sampled Population of the Planning Area

Age Group	Total No of people	%of Total
0-5	276	13
6-9	322	14
10-14	254	12
15-19	310	13
20-24	243	11
25-29	256	12
30-34	217	10
35-39	190	9
40-44	67	3
Above 45	89	4
TOTAL	2240	100

Source: Field Survey, 2001-2002



A bar chart showing Age Distribution of sampled population of the planning Area

4.6 ESTABLISHMENT OF ENVIRONMENTAL AWARENESS AND CONSERVATION EDUCATION UNITS IN KUJE AREA COUNCIL.

National Conservation Strategy of Nigeria (1998) stated that Local, State and Federal Government should establish awareness and conservation education unit to be headed by a conservation education co-coordinators.

Carefully weigh the objective of providing adequate facilities and sites with the need to protect landscapes and environmentally sensitive site, to examine the scope for relocating any existing visually or environmentally- intrusive sites away from sensitive areas, for relocation away from site pronto environmental degradation such as flood, erosion pollution and deforestation.

There should also be a national conservation education and awareness commit at all level, especially on the Area Council is order to reach the grass root in passing information about the environment to the local people. Nigeria education research and development Council (NERDC) and (UNESCO) came up with environmental education curriculum which was approval by the honourable minister of education and be taught as a co-subject in primary, secondary schools and also at non-formal sector. Its indeed very important to have a desk officer – in- charge of the unit at the Area Council Level in Abuja for environmental awareness and education curriculum as suggested by the national conservation education strategy in (1988). The unit should be seen to shoulder the following responsibilities.

Production of Journals charts and model logs, etc for conservation chuls, organize with people directly involved in the destruction of the environment such as fishermen, hunters, women, headmen and industrialist, this could be done through Radio and Television, lectures, poster, handbills seminars and workshop, tree planting campaign, world environment day of 5th June every year and the observant of all important days as set aside by the UN (Environment)

4.7 MONITORING

- Corporate bodies
- Religion bodies
- Private voluntary organization (PVOs)

4.9 PEOPLE AND ENVIRONMENT

The primary aim of this module is to explain and illustrate the relationship between human beings and their environment. In this connection, examine

- Population size
- Population growth val
- Population distribution
- Technology
- Myths, belief and human behaviour
- Politics
- Economic activities

4.10 RESOLVING THE CONFLICTS

A key issue in environmental resource utilization today, is the question of equitable allocation of benefits and responsibilities associated with economic activities, between individuals and the collective (society as a whole.)

Strategies designed to address this problem on a sustainable basis should have as their focus the following. Participation of all stakeholders in decision-making. Democratization of resources management and the mechanism for sharing benefits, equity.

CHAPTER FIVE

SUMMARY RECOMMENDATIONS AND CONCLUSION

5.1 SUMMARY

Based on the research, analysis and presentation in this dissertation, the following findings were made:-

1. Benefits and cost items are represented by their money values the environmental impact on the environment are often given non-monetary descriptive evaluation and these are usually not given serious considerations by the decision makers.
2. Non- specification of cost in a sustainability criterion, ie. Does not have an in-built mechanism to ensure the preservation of environmental services between generation (intergenerational equity)
3. Public policy in Nigeria until very recently has always had a problem of adequately conceptualizing the environment in a holistic perspective.
4. Sustainable development is an approach that combines the development needs and aspiration of the present without compromising the ability of the future while also maintaining ecological integrity.
5. Environmental deterioration is being accelerated and natural environment is fast becoming a 'man-made' environment. No Nation, rich or poor escapes these realities.
6. The natural ability of man to adapt to the environment and his gifted intelligence to adapt to environment to be compatible with a high standard of modernization.
7. The planners must strive to formulate one which can be implemented within the limit of the social, economic technological and scientific resources of the nation.
8. The nation must not import an environmental policy that because it has been successfully implemented elsewhere.
9. Rural areas of Nigeria, the predominant problem is the biological pollution of water, soil, contamination of food with human and other waste products.

environmental conservation education and awareness unit in the area council structural administration.

5. The compulsion monthly environmental sanitation exercise should be observe and enforce hence people wait to be push before they act even what affect their own personal life / health.
6. Kuje Area Council should strive for universal to education, and achieve primary education for at least 80% of all men and women through formal schooling or non-formal education.
7. There is need to explain not only the physical and biological environment but also soci-economic environment and human development
8. Financial and past-environmental impact Assessment of all environmental resources projects is necessary to assess the level of financial lost and environmental degradation in terms of development. This will give a clear picture of what is on ground before a decision could be taken on the situation at hand. This could also serve as a backbone for future strategies to avoid failures that could lead to farther lost of financial and human resources as well as environmental consequences that come with such projects.

5.3 CONCLUSION.

Many people in Kuje Area Council do not understand close the between human activities and environment because they have in accurate or insufficient information about the whole idea of keeping the environment orderly. The local government administration we have the staff, organization, societies and existing industries have paid little attention to the environment.

The way our drainage is being misuse today call for the concern of all and sundry, the indiscriminate felling of tree, indiscriminate bush burning, illegal mining around the area council and other man made problems to the environment need to be checked very seriously if our survival as a area council and the FCT Abuja is to be ensured for sustainable development.

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APPENDIX 1

(a) ATMOSPHERE

1. Drought and desertification
2. Flood
3. Dust and dust storm
4. Air pollution
5. Noise pollution
6. Thermal pollution
7. Impaired visibility
8. Wind storm
9. Rain storm
10. Deflation

(b) WATER

1. Flood
2. Water pollution (surface water and ground water)
3. Siltation of reservoirs and streams
4. Water scarcity
5. Marine storm

© LAND

1. Soil erosion (inland and coastal)
2. Land pollution
3. Land scarification
4. Salinization
5. Sand dune occurrence and shift
6. Difficult terrain.

APPENDIX II

ASSESSING THE ENVIRONMENTAL AWARENESS ON SUSTAINABLE
DEVELOPMENT FOR RURAL SETTLEMENT IN KUJE AREA COUNCIL

QUESTIONNAIRE

Name:..... Ministry or Organization:.....

How old are you (a) 1-10 (b) 11-20 (c) 21-30 (d) 31-40 (e) 41 and above

Occupation (a) Trade (b) Farmer (c) Fisherman (d) Civil Servant (e) Other specify

Duration in the State (a) 5-10 years (b) 11-15 years (c) 16-20 years (d) 21-30 years (e) 31
and above

Do you know how your activities affect the environment?

(a) Yes (b) No

If yes how do you know?

(a) Through observation (b) Enlightenment (c) Change in land forms
(d) reduce in yield (e) climatic change

Were you ever informed about how your action affect the environment

Yes or No

If yes by who or what

(a) extension worker (b) radio discussion (c) Government campaigns
(d) through the papers (e) school

Do you care about your environment Yes or No

If yes How

What do you think should be done to keep the environment orderly, safe, and
protection?.....