

**THE ASSESSMENT OF PUBLIC PERCEPTION ON
ENVIRONMENT IN A RAPIDLY CHANGING URBAN
SETTING (A CASE STUDY OF MUNICIPAL AREA
COUNCIL ABUJA)**

BY

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DECLARATION

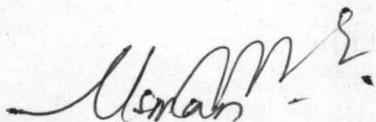
I, David Simon Awodo here by declare that this report entitled the assessment of public perception on environment in a rapidly changing urban setting (A Case study of municipal area council Abuja), is a product of my own research work under the supervision of Dr. M.T. Usman.

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David S. Awodo

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Date

CERTIFICATION

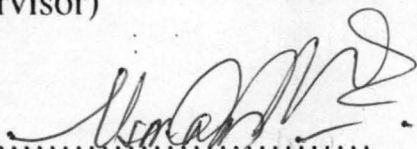
This is to certify that this research project is an original work undertaking by David Simon Awodo (PGD/GEO/2003/2004/283) under the supervision of Dr. M.T. Usman. It has not been submitted before by anybody for any purpose and has been prepared in accordance with the regulation governing the preparation of project in the department of Geography, Federal University of Technology, Minna.



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DEDICATION

This research work is dedicated to God Almighty and the entire members of my family.

ACKNOWLEDGEMENT

I acknowledge with gratitude the contribution of my dear Wife, Daughter, Son, Father, Mother, Brothers and Sisters throughout the period of this programme. Their advise, understanding moral and financial support from the foundation of my determination towards the achievement of this academic goal.

I would like to thank those people who have specially helped to make this research project possible, principal among them are Dr. M.T. Usman who supervised this work despite his tight schedule. The course coordinator Mr. Salihu and the entire lecturers who laid the foundation till its completion, all in the department of geography.

ABSTRACT

This report highlights the result of a research survey conducted to determine various people's perception about the environment in an urban setting with a case study of municipal area council Abuja.

The aim of the research is to study and analyse the differences in people's perception about the environment in municipal area council Abuja a vision of knowing how their population also has affected their environment and also now the environment has affected the people in return bush environmental impacts for example includes: the health hazard generated due to the poor waste disposal management serious traffic problems generated as a result of increase in road users over the initial carrying capacity of roads, environmental pollution of the conversion of green areas to residential industrial layouts construction activities.

Primary data was acquired through survey and the use of questionnaire. The secondary sources was from documents or already generated information of relevant substance collection at second hand.

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CHAPTER ONE

1.1 INTRODUCTION

Many debates and controversies regarding management of natural resources stem from people's different environmental perceptions and values, in some cases, the different perceptions they have of other people's values. This issue is magnified by the rapidly changing landscape, as people relocated and natural resources change, individual respond to their surroundings in different ways.

Population growth and distribution is a crucial environmental issue of this century and will continue to be if no adequate measures are taken. Nigeria been a developing nation is the most populated country in Africa with approximately 98 million hectares of land liberally endowed. Its population is still on the increase at a very fast rate. This population engages mainly in primary production activities as well as others, that is, the population relies much on the natural environment for its livelihood. Among these, agricultural and mineral resources are the most vital and predominant activities. There is little doubt that due to the rising rate of population we are using our renewable environmental resources faster than they can be replenished and as a result there is at present a shortage of some resources and an expectation of more of these shortages in the future.

1.2 PROBLEM STATEMENT

The time to control environmental problems in Municipal Area of Council of Abuja is running short if urgent adequate measures are not put in place. The fear is that without appropriate checks and balances

human activities for survival, such as, agriculture, transportation, waste disposal, mining, timbering, construction etc., the 'bomb' would render the environment inhabitable.

Nearly 80 percent of Americans live in urban areas ranging in size from cities to large metropolitan areas. Everyday, these urban dwellers affect the natural environment and in turn the natural environment affects the people. Decisions about where and how urban people build and landscape their homes, where and how they recreate and where they vacate to, all influence the environment. At the same time, the natural environment changes urban people too. Trees, prairies, lakes, and towns affect urban people's health and well-being. As urban population increases in size, extent and diversity, natural resources planners and policy makers must address growing concerns about a wide range of environment. To make the best decisions for the people and nature, they need better information about how urban people influence and are influenced by natural environment across the entire spectrum of urban to rural landscape.

Understanding differences in people's perceptions of the environment, as well as what types and characteristics of landscapes they prefer is the key to developing responsive policies and practices.

Therefore, there is a need to ask people what they feel, see and think about their environment before implementing policies on environment to avoid the problem of misperception of people's views.

1.3 AIM AND OBJECTIVES

The aim of this write up is to study and analyse the differences in people's perception about the environment in Municipal Area

affected the environment and also how the environment has affected the people in return.

The objective of this thesis is to reveal the:

- (1) Health hazards generated due to the poor waste disposal management in Municipal Area Council.
- (2) Serious traffic problem generated as a result of increase in road users over the initial carrying capacity of roads.
- (3) Environmental pollution generated by machines, cars and other technical objects.
- (4) The conversion of green areas, parcels, schools and hospitals into residential and commercial areas.

In addition to above, the research is also aimed at making vital contributions and recommendations on the management of the environment generally towards achieving a better and sustainable environment.

1.4 JUSTIFICATION

Both the developed and developing countries are increasing concerned about the environment (UNICEF) in Riode Janerio 1992. The developed countries consume far more resources and produce more pollutants than the developing countries are growing fast and the struggle to raise living of standards in the face of growing populations often has resulted in little attention paid to resources management and pollution control furthermore, raising standard of living and growing population combine to multiply environment problems.

The Federal Capital Territory (FCT) surrounds Abuja and occupies approximately 8000 sqkm bounded by the Kaduna State in the North, and the Plateau State in the East and Northeast. Geographically, the FCT is in the centre of the Federal Republic of Nigeria making it accessible from all parts of the country. Other neighbouring states include Niger, Nassarawa and Kogi State. (ATLAS AND GUIDE- FCT- BY NABRDA).

1.5.2 CLIMATE

The two main weather seasonal variations, typical for Sub-Sahara Tropical Climate are the dry season (Oct - March) and the rainy season (March - October) with annual rainfall of 1.632mm. In November and early February one can experience the harmattan with occasional haze and cold nights and mornings.

1.5.3 VEGETATION

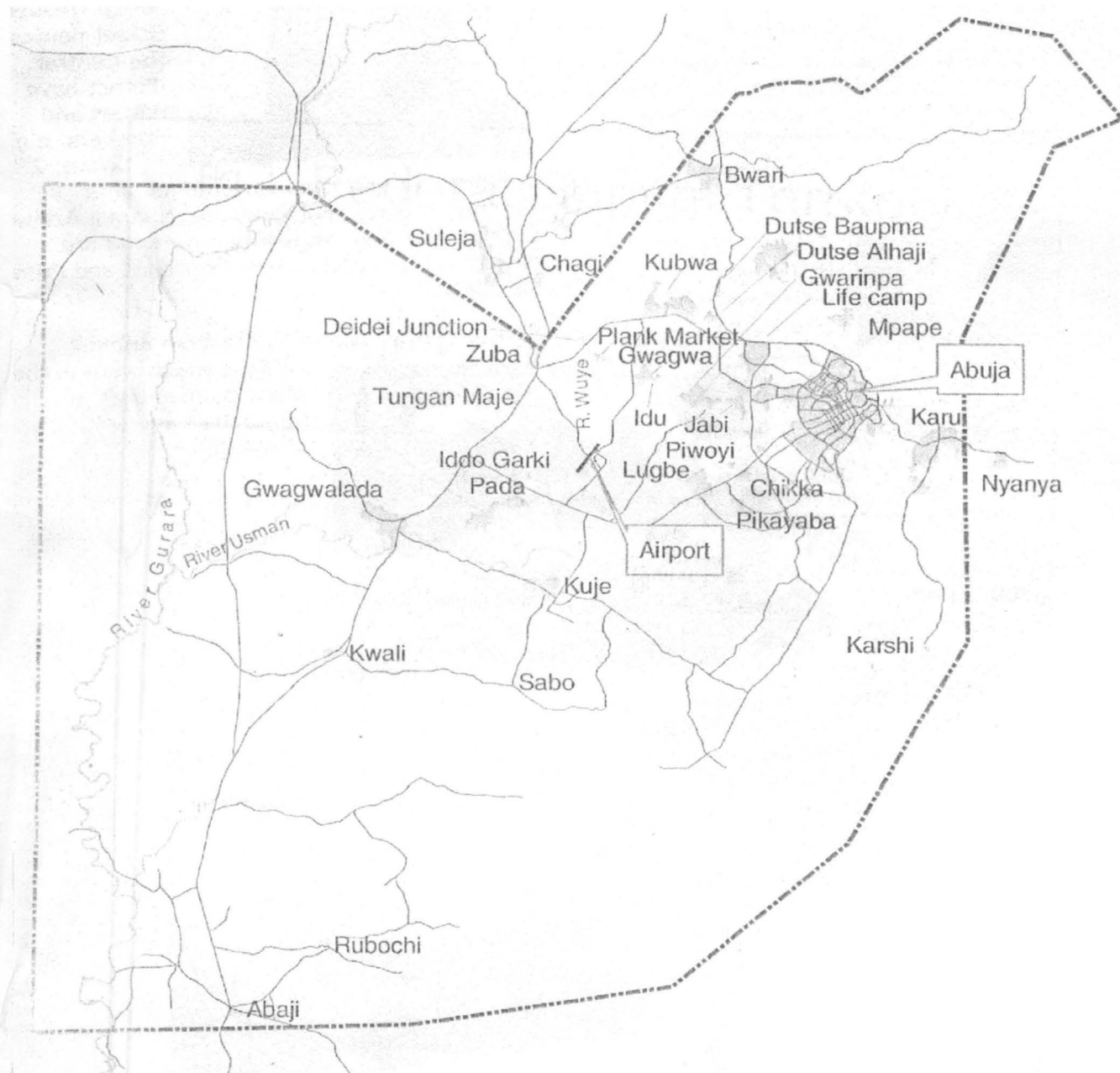
The whole area lies in natural vegetation. The area is characterized by a predominantly woody and grassland scattered here and there. Due to population pressure of this area, human activities such as, farming, construction, mining have reduced farmlands and have also damaged the vegetation cover.

1.5.4 GEOLOGY AND SOIL

The soil type in Municipal Area Council is sand, clay loamy in nature. The entire FCT is made up of Hills such as Asokoro Hill, Katampe, Karu Hills, Nyanya Hills and Maitama Hills known as the Ministers Hills all found in Municipal Area Council.

1.5.5 THE PEOPLE

FCT – Abuja with a population figure at about 1.5 million in 1991 census is expected to rise up to about 5 million people presently. The largest area council which is the Municipal Area Council has Gbagyi as their largest indigenous group living mostly in rural areas of the FCT and also in Niger, Kaduna and Plateau State. The second largest group is the Koro also found in rural areas. Other smaller tribes include, the Gade, Gana – gana, Egbura, Gwandara and Bassa.



Map Projection: UTM Zone 32
Datum: WSG 1984

All maps and images in this atlas are derived from satellite imagery acquired between 23 January and 5th of February 2002. Land use and land cover development which has occurred since this time is not shown in this atlas.

Fig. 1.1: Federal Capital Territory

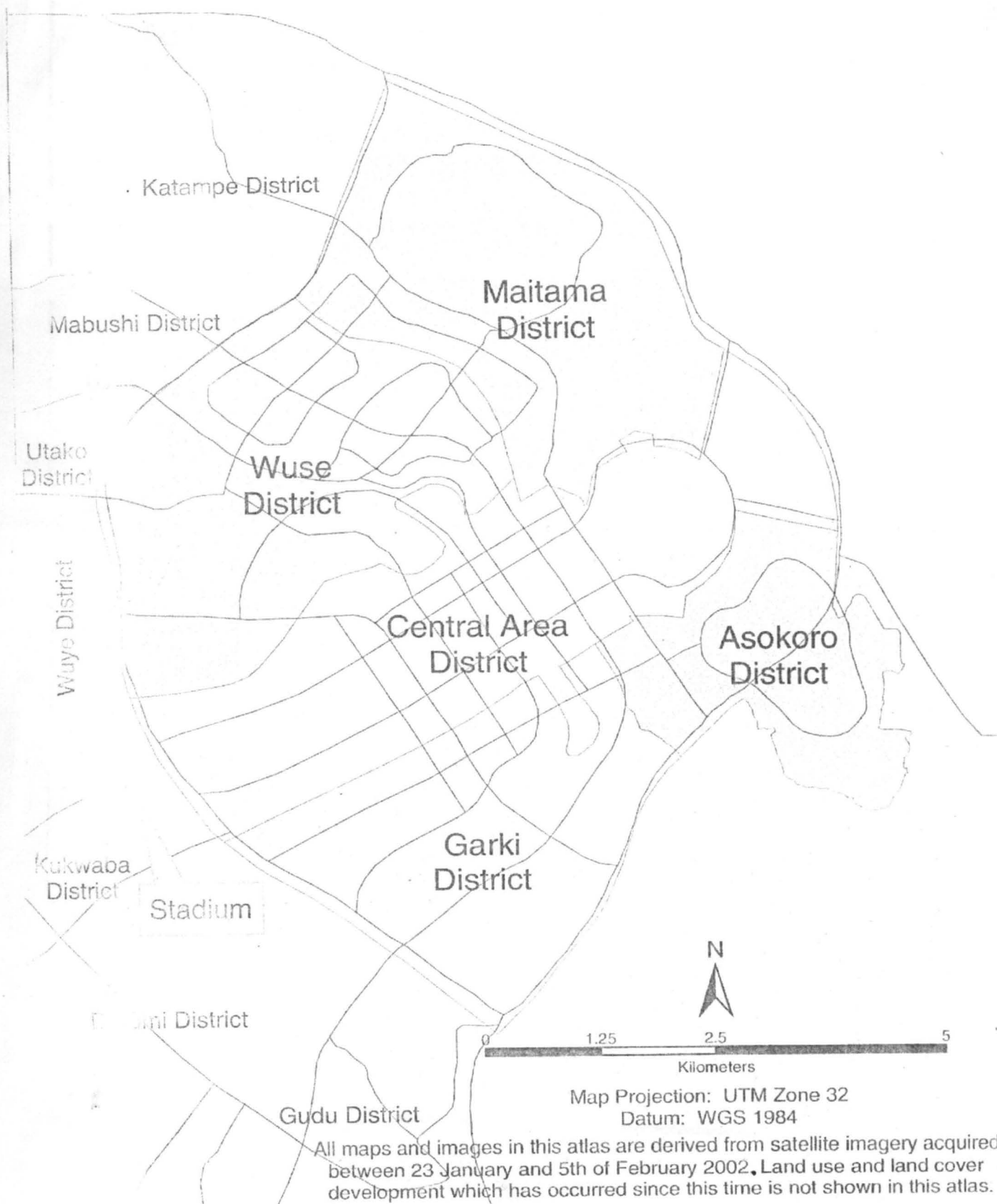


Fig. 1.2: Abuja Federal Capital City Phase 1

1.6 SCOPE AND LIMITATION

The research work is designed to cover Municipal Area Council Abuja. To study and analyse the different perception of people on environment and the various impacts the development or population have made on the environment. It will also contain the possible contributions towards achieving a better and a sustainable environment.

CHAPTER TWO

LITERATURE REVIEW

The study of environment and its people therefore helps me to focus on the perception of people on the environment generally and the impact the people have on the environment or the environment on the people towards achieving a sustainable development.

When population grows rapidly and more than the carrying capacity, natural resources are under increasing pressure, threatening public health and development. Water shortages, soil exhaustion, loss of forests, air and water pollution, heavy traffic problem, loss of green areas. (Population reports - By John's Hopkin University).

There is also no doubt that due to the rising population rate, we are using our renewable environmental resources faster than they can regrow, eliminating habitants of endangered species and wildlife faster than they are replenished. We are also extracting mineral, oils and ground water without sufficient concern for their limits as the need to recycle them. As a result of above, there is at present, a shortage of some resources and the expectation of more shortages in the future to come. Therefore, we must learn how to sustain our environment resources so that they continue to provide benefits for the people and other living things on the planet for the purpose of the survival of future and present generation.

Global climatic change as a result of human activities for survival on the earth also has indirect effects upon the transmission of diseases. For example, global warming would increase the need for irrigation

most especially in hot climatic regions like northern Nigeria. (Lecture notes on GHGs by Prof. Baba 2004).

The people will affect the environment and the environment will affect the people in virtually all the specific ways that human beings interact with the environment.

These includes.

- Urbanization (URBAN GROWTH)
- Agriculture
- Soil Degradation
- Fresh water and population pressure Acid Rain
- Global climatic change
- Green house gases Desertification
- Urban heat Island
- Urban environmental management
- UN Habitant

2.1 URBAN GROWTH

The rapid growth of cities in the developing world like Africa puts them in the fore front of the struggle for improved living of standards and protection of the environment. Since 1950 the urban population has more than tripped, from just over 750 million to about 3 billion. By 2030 some 5 billion people will live in cities. In the developing world, the urban population is projected to double from 1.9 billion in 2000 to be just under 4 billion by 2030. (Population Report).

Worldwide, about three - fourths of all current population growth is urban. Cities are gaining an estimated 55 million people per year over 1 million new residents every week from in - migration and natural population increase within cities.

The UN coined the term megacities in the 1970s to describe cities with 10 million or more residents. As recently as 1975, there were only five megacities worldwide. Currently, there are 19 megacities of which 15 are in developing countries. By 2015 the number of megacities will rise to 23. Megacities have captured public interest because of the popular perception that human well-being will decline in such dense concentrations of people - (Martin Brokerhoff)).

Millions of people move from the country side to the cities to seek a better life but they often find that their lives become more difficult. In many cities population is higher in poor shanty towns or squatter settlements, or they live in streets.

Therefore, city dwellers use more water and energy, generates more waste than rural residents.

2.2 THE GREEN HOUSE EFFECT

The world is 0.3°C to 0.6°C (0.5°F to 1°F) warmer than 100 years ago. Scientists have projected that average temperature will increase by a further 1°C by the year 2025 and 3°C by 2100. No previous global climate change of this magnitude has occurred over such a short period.

Global warming is popularly called the "Green house effect" because heat trapping gases building up in the troposphere of lower atmosphere, keep the earth substantially warmer than it would be without them. Like the glass panels of a green house, these gases let in heat from the sun but prevent some of it from going back out, causing temperature on earth's surface to rise.

Scientists cannot prove that the observed global warming trends is due to increased levels of gases in the troposphere rather than to

cyclical variation in weather. The available data are consistent, however, with climate changes predicted from the amount of gases accumulating in the atmosphere. Both the magnitude and the speed of global warming remain uncertain because of the complexity of the natural processes that affect climate. It will take at least another decade of study and perhaps longer to document fully the cause and dimensions of global warming.

Nevertheless, it is clear that human activities are chiefly responsible for the build up of green house gases observed in the troposphere. Three gases and methane are thought to cause 95% of global warming. Energy production and used for industries, transportation, and residential on commercial purposes account for nearly half of all green house gas emissions. CFCs, used for refrigeration and in various industrial processes, account for another 24% and burning of forests and grasslands contributes 18%.

Carbon dioxide is released mainly by fossil fuel combustion and production, land clearing by burning vegetation and cement manufacture the accumulation of carbon dioxide in the atmosphere closely parallel the growth of the world's population. More than 40% of the total increase in carbon dioxide emissions between 1950 and 1985 can be attributed to population growth with the rest coming from increase energy use per capita. If current trends continue, population growth will contribute 50% of the increase in carbon dioxide emissions between 1985 and 2025.

Similarly, methane emissions closely match the growth in human population. About half of all methane emissions from human activities result from vegetation combustion, decaying garbage, gas pipeline leaks and coal mining. The other half is associated with food

production, including gases emitted by rice paddles, cattles, and irrigated land.

World wide, the number of cattle has grown about half as human population

(0.9% annually), and the amount of irrigated land has grown at about the same rate as population since 1980 (about 1.9% annually). Because methane is closely associated with food and energy consumption, it may be difficult to produce per capita emissions, and therefore future population growth will be a major factor in increased methane emissions. Continued emissions of green house gases could make the climate to become warmer. A temperature change of a few degrees does not sound like much, but a long term shift could be devastation the "bread basket" grain producing areas of North America, the former Soviet Union would become hotter and dryer.

World food production might rise due to warmer ocean expanding in volume and polar icecaps partially melting. The rise in sea level could flood low - lying coasted areas, many of which are densely populated. For example, if the sea level rises one meter by 2050, as some experts predict, Bangladesh and Egypt would lose 16% and 15% of their land area, respectively displacing millions of people. Constructing sea walls would be prohibitively expensive for most developing countries.

To prevent such consequences, levels of green house gas emissions need to be

first stabilized and then reduced. Both develop and developing countries will need to change energy consumption patterns, adopt new industrial technologies, and limit population growth. Developed countries generate large amounts of green house gases by burning

fossil fuels and producing des, but many developing countries also have high emission levels due to deforestation agriculture, and unregulated industries.

Developing countries, added 45%. Further increases in green house gas emissions are likely. The developing countries will be the major sources of the increases due to expanded industrial development, agricultural production and contributing to all of these, population growth. For example, carbondioxide emissions attributed to energy use in developing countries are projected to increase by 80% between 1985 and 2020 because of population growth alone. If per capita fossils fuel consumption doubles as well, carbondioxide emissions will increase by 365%. Under this scenario the developing countries would increase their share of carbondioxide emission attributable to energy use from 16% in 1985 to 50% in 2020, assuming that developed countries reduced their fuel consumption by 20% through conservation. One hopeful sign is that most nations have agreed to stop using CFCs by the year 2000 and limit use of other damaging industrial chemicals.

Shifting to non-fossil fuels, introducing more efficient technologies, and even limiting energy use may be necessary. Slowing population growth also can help limit green house gases emissions for example, per capita carbondioxide emissions in developing countries are projected to double between now and 2025.

Stratospheric Ozone depletion. Although hazardous at ground level, Ozone in the upper atmosphere is beneficial. It screens out harmful ultraviolet radiation from the sun. The Ozone layer is located in the stratosphere between 15 and 50 kilometers above the earth. Ozone levels declines over parts of North and South America, Europe,

Australia, and Newzeland. A 1992 study reports that the Ozone layer is thinning even more rapidly than previously thought. Thinning of the Ozone layer and thus more ultraviolet radiation reaching, reduce crop yields, disrupt marine food chains, and inhibit photosynthesis. Major causes of Ozone depletion include CFCs, chemicals used in solvents and nation, which is used in fire extinguishers. All these gases are important to industries and agriculture. The industrialized nations have agreed to phase out CFCs quickly, replacing them with possibly less damaging substitutes, and they have established a US \$240 million fund to support the introduction of new technology by developing countries. New research has found, however, that these measures will not completely prevent further Ozone depletion. CFCs remain in the atmosphere for century, continuing to do damage, levels of chlorine in the atmosphere from CFCs could triple in the next century.

2.3 AGRICULTURE

At a basic level, each person has a minimum food requirement and therefore population increase the over all amount of food needed. Population growth affects environmental conditions necessary for food production. In 64 of 105 developing countries studied by the UN food and Agriculture organisation, the population has been growing faster than food supplies.

Population pressure have degraded some 2 billion hectares of arable land. An area the size of Canada and the US. Growth in the food supply has lagged behind population growth according to the UN (FAG). World wide, the grain harvest increased above 1°1o annually

between 1990 and 1997, a rate of growth sustaintially slower than the average population growth rate in the developing world, at 1.6°10.

2.4 SOIL DEGRADATION

Population pressure on arable land contribute to the land's degradation, as more and more marginal land is brought into cultivation to feed more and more people. Land degradation claims 5 million to 7 million hectares of farmland each year. When soils are over worked, wind and water erode them faster. Soil also can be come poisoned from improper irrigation techniques and from improper use of agricultural chemicals. Moreover, in most developing countries like Nigeria, vast amounts of agricultural land are being lost as cities expand.

Nearly 2 billion hectares of crop and grazing land are suffering from modernate to severe soil degradation, an area about the size of Canada and US combined. In some places fertile topsoil is being depleted 300 times faster than nature can replenish it in Kazakhstan, for instance, nearly half of the crop land will be lost by 2025, according to the country's institute solid management.

2.5 FRESH WATER AND POPULATION PRESSURE

Growing number of the world's rivers, lakes and ground water aquifers are being severely contaminated by human, industrial, and agricultural wastes. High withdrawals of water and heavy pollution loads have already caused widespread harm to a number of ecosystems. This has resulted in a wide range of health effects in which humans have been harmed by water borne illness and

contaminated food. Rising human demands only increase pressure on ecosystems and intensify the need to maintain and adequate water supply to Wetlands, Lakes, rivers coasted areas to ensure the healthy functioning of ecosystem (UN 1997).

Water related diseases place an excess we burden on the population and health services of many countries world wide, and in particular on those in developing countries (WHO 2000). Further more, unsafe drinking water combined with poor house hold and community sanitary conditions remain a major contributor to diseases and malnutrition, particularly among children. These poor water quality and sanitation condition contribute to the approximately 4 billion case of diarrhea each year, which lead to 2 million deaths, mostly among children under the age of five (WHO and UNICEF 2000).

2.6 ACID RAIN:

Acid rain is caused by two gases, sulphur dioxide and Nitric oxide, released into we air from electric generating plants, industries, and vehicles. When combined with moisture in the air, the gases from acids that make water more acidic lowering it PH to the level of vinegar or lemon Juice such rain damage the eco-system, killing plants and fish.

The gases that cause acid rain may be quickly blown long distances- as far as 2,000km in a few days. This acid rain is an international problem. Depending on the way the wind blows, one nation's air pollution causes another nation's acid rain. Without better technologies to reduce the pollutants cause acid rain at their source,

growing populations and the industrial production required to meet their needs will result in greater acid rain problems.

Thus evidence of environmental damage has been emerging in many European countries. While many scientists and politicians, particularly in the countries most affected, attribute this directly or indirectly to acid rain, it is in fact difficult to establish the links beyond doubt. In the UK a parliamentary select committee took evidence in 1984. It echoed these uncertainties, but it proposed action even though the evidence was incomplete.

2.7 GLOBAL CLIMATIC IMPACT

Over the last 150 years burning of fossil fuels has released some 270 billion tons of carbon into the atmosphere in the form of heat – trapping carbon dioxide gases. Since 1950 annual worldwide carbon emissions have increased fourfold, reaching 6.3 billion tons in 1997. Other emissions that contribute to climate change include methane (mainly from domestic livestock and agriculture), nitrous oxide, and chloro fluorocarbons.

Atmospheric concentrations of carbon dioxide reached 363 parts per million in 1998, the lightest level since the time of massive volcanic activity over 160, 000 years ago, based on examination of ice cores antarctica and in the Arctic. If current trends continue, atmospheric concentration of carbon dioxide would double during this century.

About three – fourths of the huge increase in carbon emissions over the past half century is due to increased energy consumption per capita, about one – quarter is due to population growth. Western industrialized countries account for really half of atmospheric carbon

emissions, but developing countries are producing a growing share as industrial activity increases and population grows. China is now the world's second largest carbon emitter, after the US.

However, models developed by the Hadley Centre for Climate Prediction and Research in the UK project that, as the world warms, vast swaths of tropical forest – especially in the Amazon River Basin, could begin to dry out.

If so, many tropical forests would die out. Their loss would mean even less ability to soak up carbon dioxide from the atmosphere, a trend that could accelerate global warming.

2.8 URBAN HEAT ISLAND

A city is said to be an urban heat island when the air in that city can be 6-8°F hotter than its surrounding areas. This is the high level rise in temperature that increases air conditioning and raises pollution levels as a result of less vegetation cover, dark surfaces that absorb more heat from the sun. In this case, no shade that will cool the air as one result of deforestation and construction activities in search of plots of land to build houses in an urban setting.

2.9 URBAN ENVIRONMENTAL MANAGEMENT

Take any of today's environmental problems faced by the inhabitants of Earth, and its causes and pressures can easily be traced back, directly or indirectly to urban areas. The forces and processes that constitute urban activity have far-reaching and long-term effects not only on its immediate boundaries, but also on the entire region in which it is positioned.

In a very broad sense, the urban environment consist of resources, human and other, processes, that convert these resources into various other useable products and services, and effects of these processes, which may be regulative or positive. For example in Resources, we have, human resource, sunlight, land, water, minerals, fuels finance etc. in processes such as, manufacture, transportation, Construction, migration, population growth etc.

The negative effects therefore are, pollution, noise, waste generation, sewage congestion, overcrowding etc. While the positive effects many be, products, values addition, increases knowledge base and education, access to better services etc.

2.10 **UN – HABITAT**

The united Nations human settlement programme, UN-HABITAT, is the united Nations human settlements. It is mandated by the UN General Assembly to promote environmentally sustainable towns and cities with the goal of providing adequate shelter main documents outlining the mandate of the organization are the Vancouver declaration settlements, habitat Agenda, Istanbul declaration on human settlements, the deceleration and other human settlements in the new millennium.

The agency's 2002-2003 budget in us & 300 million and comes from four main sources 80% in the form of contributions from multilateral and bilateral partners for technical cooperation in earmarked contributions from governments and other partners, including local foundations with 5 percent from the regular UN budget and 5 percent in the form of contributions from governments. (2003 UN-HABITAT).

CHAPTER THREE

THE RESEARCH METHODOLOGY

Abuja the capital of Nigeria, officially replaced Lagos as the country's capital in December 1991, after 15 years of planning and construction. With the movement the movement of the seat of the Federal Government to the city in 1989, Abuja assumed the status of the administrative and political centre of Nigeria. The study concentrates on municipal area council which forms one of the development areas out of five in Abuja.

An earlier study on municipal area council Abuja revealed that a large portion of the populace was engaged in Agricultural, trading and fishing, while a substantial portion also engaged in Administration and professional occupations.

Data sourcing shall be from primary and secondary sources.

3.1 Primary Sources:- Various surveys were conducted on the project site with a view of identifying and observing biophysical and social environment and taking inventory features, and to ascertain the existing features and level of man activities on the biophysical environment with respect to what their perceptions are on the environment generally and the increasing number of human population.

The questionnaires were designed to source information from the inhabitant and the Federal Capital City authority. The questionnaires were designed to source for adequate data base our environment and the people.

The major advantage of this method is originality, since information were collected at first hand.

Another advantage is reliability and that one can be absent as he extracts information. On the other hands, the primary sources is useful because of the accessibility to targets or sources. Although, the disadvantage however, is that it is time consuming, most expensive most especially one need to go around the project area to extract vital information from their sources for the purpose of making comparisms and recommendations.

For example I had to go to rural areas that make up the municipal area council which includes, Garki, Gwagwa, Karimu, Jabi, life camp, kado, Gwarin Pa, Karu, Nyanya Lugbe, Aleita, Asokoro, Wuse, Maitama, Apo etc. to collect information.

3.2 Secondary Sources: These are documented or already generated information of relevant substance collected at second hand. Such materials were available but in minimal volume. Secondary sources are therefore, generated and stored information of second had origin the secondary sources has the merit of simplifying the work for the researcher. The information is already generated. It is consequently time saving and easily referable. On the other hands, it has the demerit of the possibility of being vague varieted. Another demerit is that the changing of situations for example, climate and development and events may alter the genuevity of results.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This research is concerned with the study of people's perception on environment in an urban setting with municipal area council Abuja as a case study.

This chapter deals with the results, analysis and the discussion of findings.

The questionnaires were structured in line with the objective of the study. As all the habitat of the area council cannot be reached, the researcher selected randomly to the total number of eighty (80) respondents to administer questionnaire. They were either the head of the house hold or his spouse and where nether of them was not available an adult who may be familiar or has sufficient knowledge about the research topic was given the questionnaire.

Also from the political wards in Abuja municipal area council, (8) were randomly selected from which the respondent selected a, total of (10) questionnaire were administered in each.

TABLE 4:2**THE POLITICAL WARDS IN MUNICIPAL AREA COUNCIL
ABUJA.**

S/NO	WARDS SELECTED	TOTAL NO OF QUESTIONNAIRE
1	Garki ward	10
2	Wuse ward	10
3	Maitama ward	10
4	Karu ward	10
5	Nyanya ward	10
6	Gwarinpa ward	10
7	Karimu ward	10
8	Gwagwa ward	10

80

Source: Independent National electoral commission Area 10 Garki –
Abuja.

**TABLE 4:3 FINDINGS OF HOUSE HOLD SURVEY
THE RESPONDENTS OCCUPATION**

S/NO	OCCUPATION	FREQUENCY DISTRIBUTION	PERCENTAGE
1	Civil servants	35	45%
2	House wives	5	8
3	Private employed	12	16
4	Farmers	20	25
5	Others	8	6

80**100%**

Source: field survey, 2004.

The above table presents information on the occupation of respondents.

Information from the table shows that 45% of the respondents were civil servants as against 8% that were house wife. While 16% were engaged in private business. 25% constituting farmers and 6% were others spreads into either unemployed, retired civil servants or not willing to disclose their identity.

This chapter and with the help of the data's collected as above , enable the researcher to show the results and the findings of what peoples attitudes are, their views toward urban natural environment most especially as applicable to municipal area council. To most people so much damage has been done to the environment which has now resulted to so much environmental problems affecting the people.

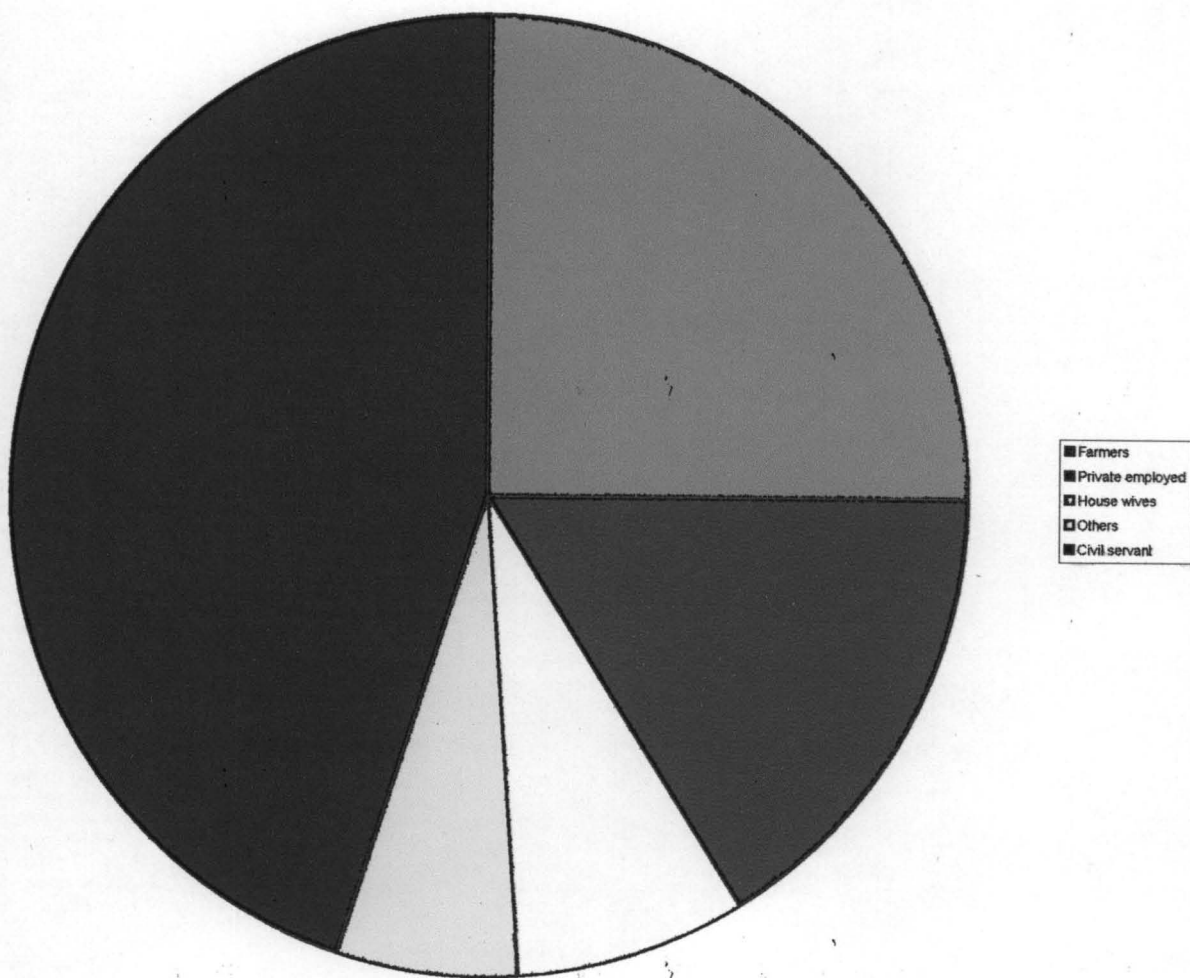


Fig 4.1 Findings of Household Survey

Table 4.4: LANDSCAPE CHANGE AND THE PERCENTAGE DEMAND FOR FUEL WOOD

S/NO	OCCUPATION	NUMBER	RATE OF CONSUMPTION (%)
1	Civil Servant	35	20%
2	Farmers	20	50%
3	Private Employed	12	30%
4	Others	6	Nil

4.4: The result above indicates that most people leaving in the area depend on fuel wood as their source of energy. Most especially the farmers. The consumption rate of civil servant was low because some people can afford gas and kerosene.

The conversion of forest for residential and industrial purposes that are not planned due to the increasing rate of population is another critical situation in Abuja municipal area council.

Most of the areas reserved as green areas and parks are being used for residential and industrial layout.

Heating and cooking also are natural phenomenon that co-exist between human, most of the inhabitants of this area have the need for wood and charcoal which is made possible only by the destruction of various species of trees and plants. the consequences of losing such forest or green areas are serious. The forests as earlier discussed in the review are essential for regulating climate by cleansing the atmosphere, cooling the temperature and providing a source of moisture for rainfall. It has

many other essential ecological functions, including soil retention and water absorption which help to prevent floods and erosion.

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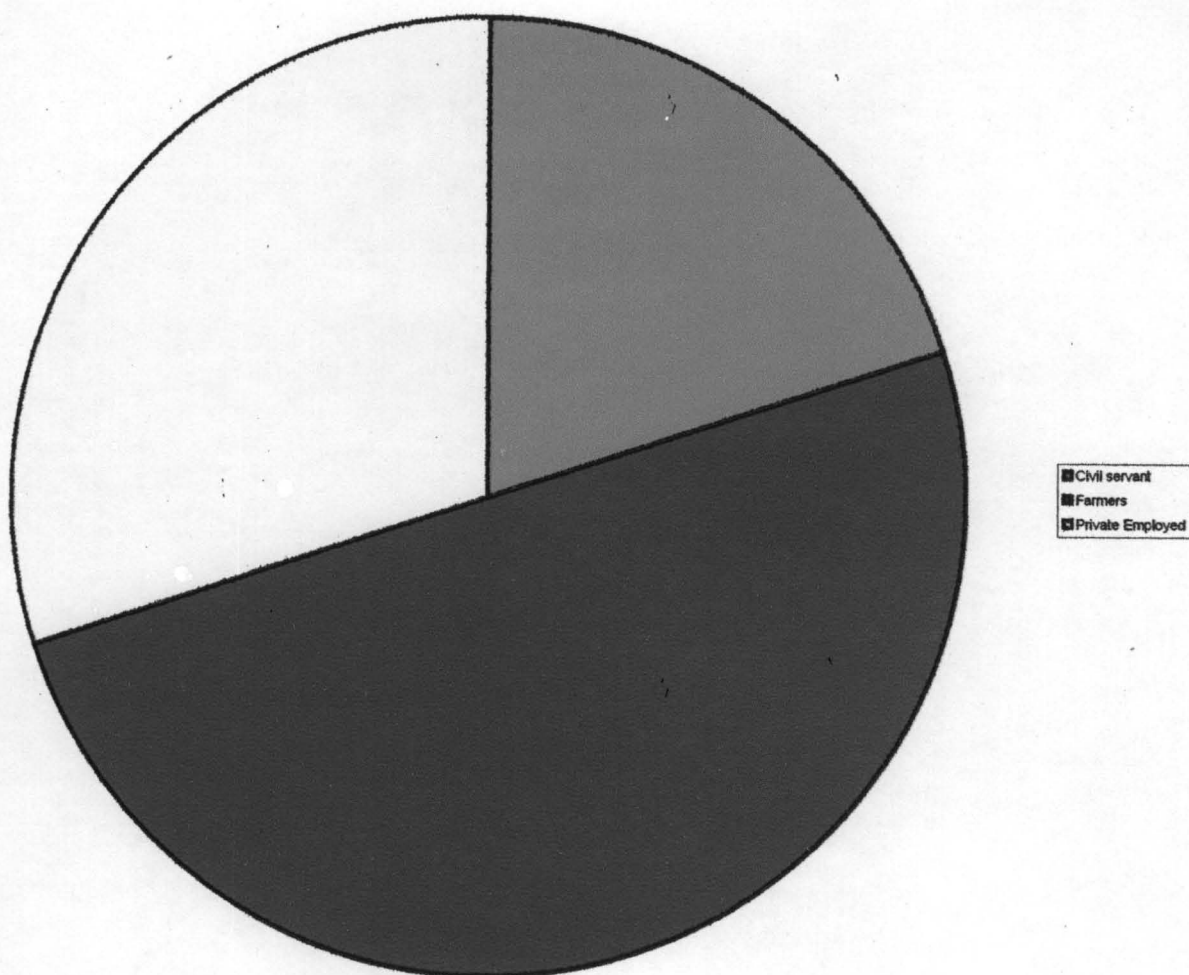


Fig 4.2 Landscape Change and Percentage Demand for Fuel Wood

OVER – CROWDING

The population growth rate of the study area from 1991 to 2004.

Using:

Growth rate : = 2.5%

Initial population = 1.5m

1991 = 1.5m (population)

1992 = 1.5 x 2.5%

1993 = 1.54 x 2.5%

1994 = 1.54 x 2.5

1995 = 1.62 x 2.5

1996 = 1.66 x 2.5

1997 = 1.70 x 2.5

1998 = 1.74 x 2.5

1999 = 1.78 x 2.5

2000 = 1.82 x 2.5

2001 = 1.87 x 2.5

2002 = 1.92 x 2.5

2003 = 1.97 x 2.5

2004 = 2m

4.5: The result above shows the normal population growth rate of the study area without migration. However, due to the increasing migration rate the population will have risen above the expected rate resulting to the shortages of infrastructures needed for sustainability.

The increasing growth rate of population in Abuja municipal area council has caused a lot of traffic and human problems there by giving room for different types of disease. There are lots of accident cases also experienced daily on roads as a result of this traffic holds ups most especially with the city of Abuja.

Also, due to over crowding, people are found dumping their waste and refuse any where without any concern about their health. This means that the population is higher than the capacity that the area council can control and manage for instance , during a cross section interview with some residents, i was told that between the year 1987 and 1992, Abuja environmental protection agency had an inspection team that was going round the city and the environment sharing waste plastic baskets or buckets and also ensuring that such are been used and disposed properly at very short interval of time. This is not found now, instead government tend to make policies that can not last. For example the use of consultant for waste disposal and management not paid their levy, they go out of the business immediately.

The increasing growth rate of population in Abuja municipal area council has caused a lot of traffic and human problems there by giving room for different types of disease. There are lots of accident cases also experienced daily on roads as a result of this traffic holds ups most especially with the city of Abuja. Also, due to over crowding, people are found dumping their waste and refuse any where without any concern about their health. This means that the population is higher than the capacity that the area council can control and manage for instance , during a cross section interview with some residents, i was told that between the year 1987 and 1992, Abuja environmental protection agency had an inspection team that was going round the city and the environment sharing waste plastic baskets or buckets and also ensuring that such are been used and disposed properly at very short interval of time. This is not found now, instead government

tend to make policies that can not last. For example the use of consultant for waste disposal and management not paid their levy, they go out of the business immediately.

Table 4.6: **SOURCES OF WATER SUPPLY**

S/NO	SOURCE OF WATER	FREQUENCY DISTRIBUTION
1	Wells	65
2	Rivers	15
3	Water Board	20

80 Respondents

4.6: The result above shows that 65 people out of the 80 interviewed depend on wells as source of water, 20 people obtain their water from water board and 15 people from rivers, therefore, there is no adequate supply of water as water from wells is limited.

The creation of dams such as, Jabi dam, lower Usman dam in Abuja was to serve the initial and expected population of Abuja as forecasted. With the rising number of able to meet the demand of the residents. So much consumption of water can be seen through industrial, domestic and agricultural purpose presently, in this area council, the residents have the opportunity of drinking fresh and treated water from the water board only ones in a week which is very dangerous to all aspect of life. There is also a greater rise in water pollution with the increase in the number of people. So many residents have problems with sewage or waste disposal, therefore, they tend to rubbish on the surface of the land which goes down stream during the rainy season.

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Fig. 3: Sources of Water

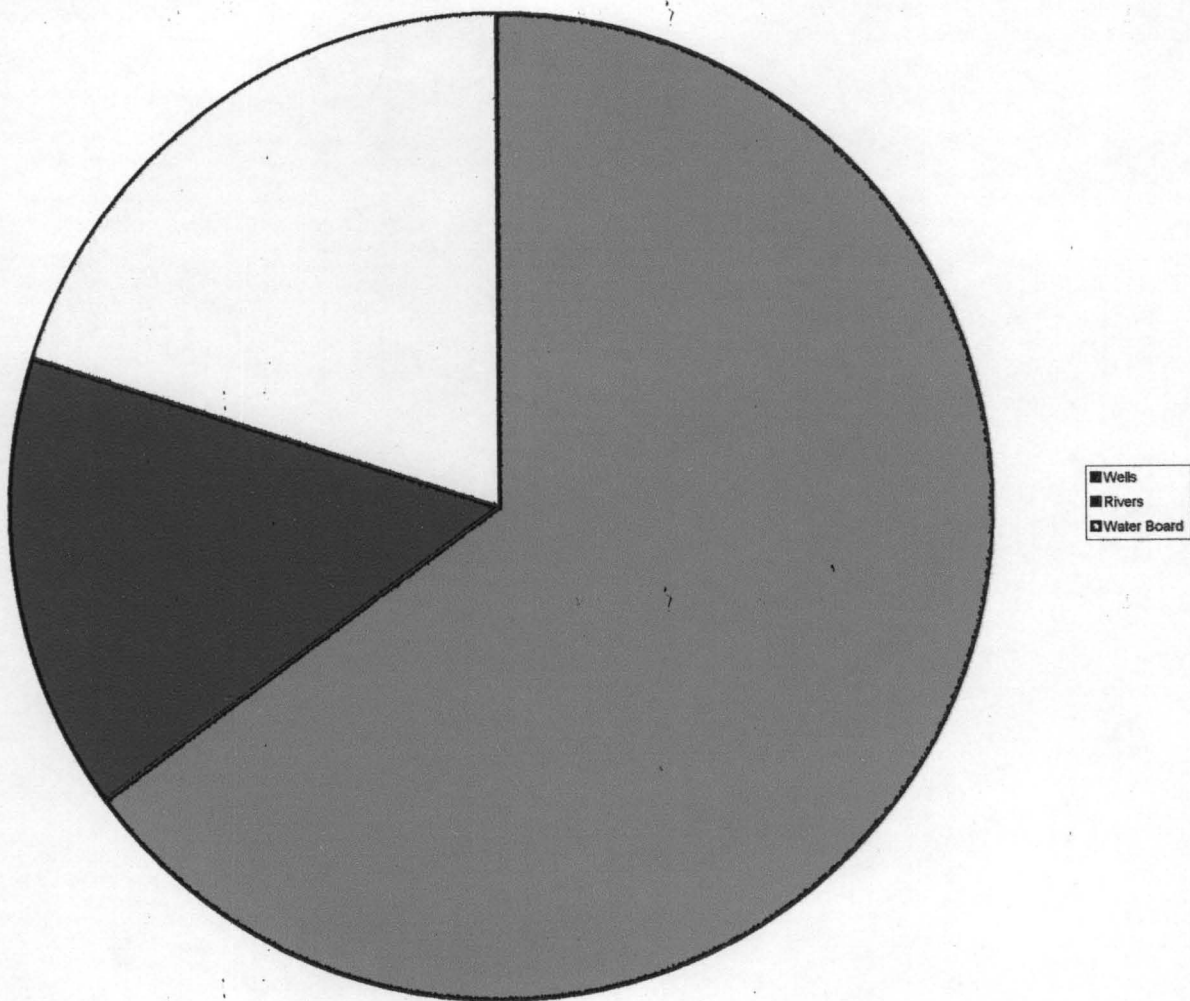


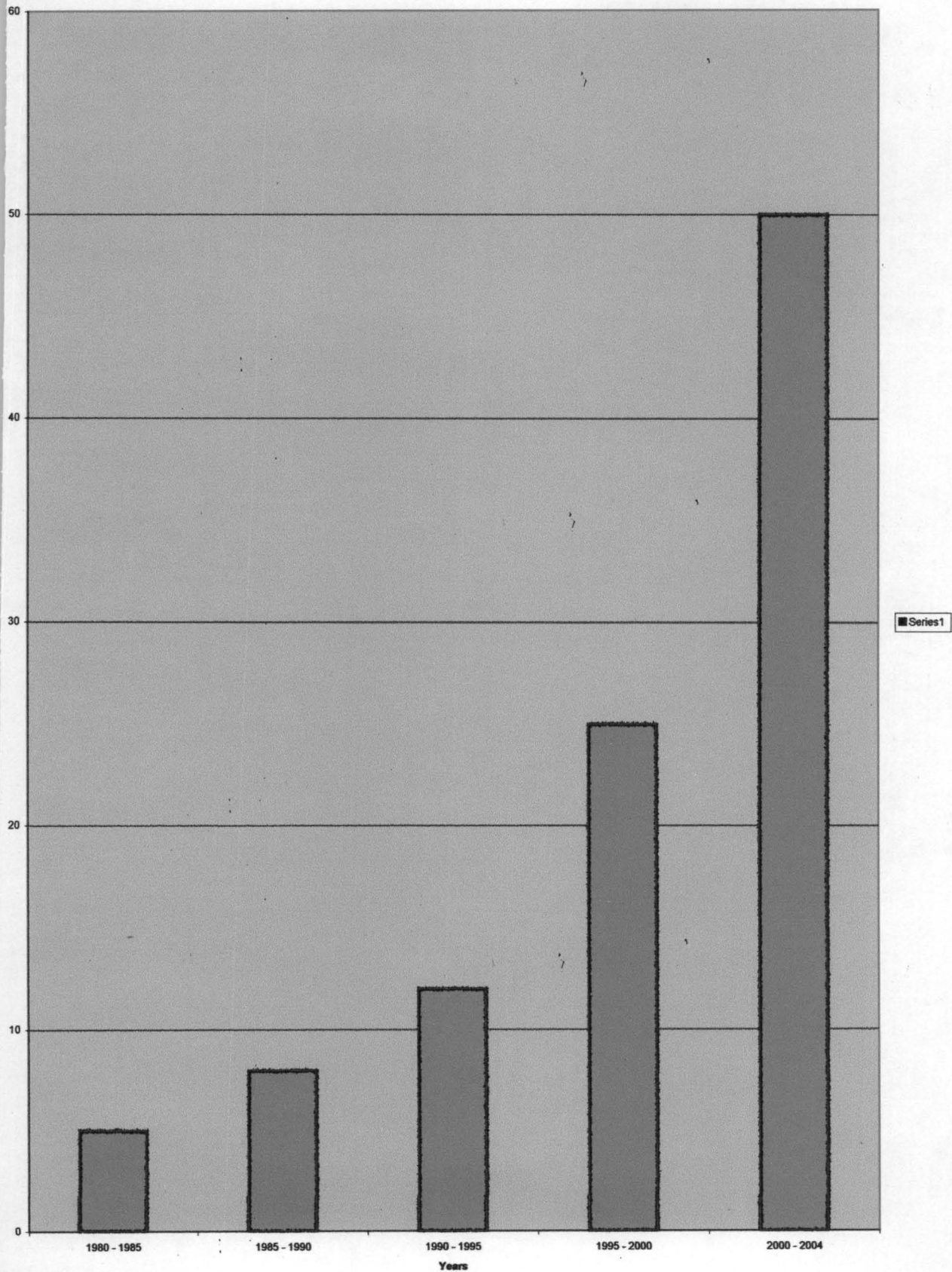
Fig 4.3 Sources of Water Supply

**Table 4.7: ENVIRONMENTAL PERCEPTION OF CIVIL SERVANTS
IN THE STUDY AREA**

S/NO	YEAR	NUMBER	ENVIRONMENTAL PERCEPTION(%)
1	1980 – 1985	35	5%
2	1985 – 1990	35	8%
3	1990 – 1995	35	12%
4	1995 – 2000	35	25%
5	2000 – 2004	35	50%
			100%

The result above shows that many people were not concern with the affairs

Fig. 4: Environmental Perception of Civil Servants



4.8 WIDE LIFE EXTINCTION AND DESTRUCTION OF ITS HABITANTS.

Deforestation, urbanization and new construction activities have damaged so many endangered species of animals leaving only small animals like rats, monkeys, rabbits that can easily be hunted. For instance, the only forest and green natural resource you can see in Abuja municipal Area council is inside the presidential villa just opposite the express way.

Some times if you passing across the express or the aso drive you could see big snakes, and some endanger species of animals passing through we security fence wire at nights. Other wise, you can only see then in smell parks like Julee Wuseni Park in Area 1, and the children park in Aso clinic.

4.9 LAND DEGRADATION

Every one of the hundreds of people being added to the Area council annually has been identified to have basic needs for food, energy, housing and other necessities despites the nature of job at hand. Daily struggle to fulfil this basic need even at minimum level has a grievous impact on the environment. The various human activities such as, urbanization, construction, Tinibering have removed the vegetation cover thereby exposing the lands under high temperature and erosion. So many areas in Gwagwa, Karimu, Gwarnpa and Katempe have been eroded as a result of such activities most especially construction. Heavy equipments and lorries obtain their late rite sand and plaster from such sources.

4.9 URBAN HEAT ISLAND

An area is said to be an urban heat island when its air can be 6-8° f hotter than its surrounding area. Usually the causes of the "heat island effect" include dark surfaces that absorb more heat from the sun and less vegetation that would provide shade and cool the air.

From my observations and the people's perception about the environment in Abuja municipal Area council, it is turning gradually with time to an urban heat island. If adequate measures are not taken. This is because the amount of heat that is experienced now was not more in the 1980s. The over population has caused dark surfaces that absorb more heat from the sun and so also the falling of trees as a result of human activities has exposed the land to a severe high temperature which is capable of affecting the climate.

SUMMARY OF THE RESULT

From my finding, I discovered that majority of people leaving in municipal area council Abuja did not have much concern about their environment at the early stage because of the limited size of population as at that time. They had no also any forecast to allow for what the future will be, not until the year 1990 when they started noticing some discomforts, shortages of natural resource, loss of farm lands and the alarming changing of their climate.

The result also shows that already the people are experiencing so much shortage of water as most people depend on water from the wells which is limited in number and seasonal. There are only few people enjoying water especially those that have money to construct boreholes and can purchase water from commercial water tankers.

It also indicates that if no proper measure is taken about the size of the existing roads, accident to untimely death of the residents daily.

PLATE 3: Traffic hold-up along Catempe Hill in Abuja



PLATE 4: (Congested people and houses in Gwarinpa area in Abuja)



PLATE 1:

Area behind National assembly quarters, Garki II.



PLATE 2:

A typical street without plants in Garki II.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

Abuja municipal Area council is a visible evidence of an urban setting with a highly population pressure on the environment. Among this population are different perception of people about their individual and respective environment. They residents have different culture and therefore different approach, attitude and the perception about life. In my study different survey, studies, interviews and questions were applicable to ascertain what people's views are, what they see and how they are been affected either positive or negatively by their surrounding environment. An addition study was made to find out if really government policies and implementation are in line with the people's views and perceptions. The rapid growth of the city has damaged the environment in several ways.

1. it has been observed that municipal area council Abuja been an urban setting consume more water, energy and generate more waste than any other part of Abuja.

This is indent in drying new tree-lee land and large dump of refuse within the area. This is because their population is more than the carrying capacity.

2. The densely populated area like the city itself, Karimu, gwagwa, Barki, Nyanya and Karn produce massive and concentrated amount of air and water pollution.

3. Most of the forest and other ecological systems are damaged many valuable plant and animal species have disappeared or in extreme case extinct.

4. The population pressure has constituted heavy traffic and human problems most especially within the city and in places like Karimu, gwagwa and karu. As a result of this, many accidents are seen every day due to the hold-up on roads which make cars to collide with one another in the process of struggle to reach wherever they want to go.

5. Due to the pressure on land acquisition for residential and industrial purpose, so many green areas have been converted to layouts for building of houses and excess roads. The beauty from the natural ever green is loss in this area.

6. Burning of trees and oil to generate heated energy, clearing of forest and grassland for dwellings and industries, use of heavy refrigerants and industrial machines, may be a source of growing amount of polluting gasses into the atmosphere, which will incidentally promote environmental damage such as the green house effect or global warming.

7. The result also indicate that the area if not checked for corrective measures is turning gradually to an urban heat island because of the congestion and the falling of trees that provide shades.

5.2 CONCLUSION

In conclusion therefore, the reader must appreciate the fact that increasingly destruction of natural resources to meet the current needs or to make a good profit is short sighted and

potentially disastrous for future generations, the need to satisfy current needs is necessary but with caution in preserving nature's productive capacity for the future.

In fact, continued economic development requires the continued productivity of farm-lands, fish and wild life stocks, forest, adequate and safe water supply, efficient energy use, and preservation of natural resources.

Majority of people are not involved in the development programs, they lack access to good education and they are not given the opportunity of telling the world perceptions about the environment.

5.3 RECOMMENDATION

1. Policy Priority: -Environmental and population issues need to be placed at the top of the political agenda especially now that we are operating democracy policy makers should ensure that policies made are in line with what the people feel and want. The consent of the people, their views and the perceptions about the environment generally should be sought before implementing any environmental policy.

2. Building Knowledge: The municipal area council Abuja in collaboration with FCDA and MFCT must acquire information on current and potential environmental problems on such topics a range of population projections, urbanization, migration, poverty, land and water use, food production capacity, resource and energy consumption, and the impact of government policies on all these matters.

3. Environmental Planning and Management:- This most important at the design state of a city. The design should put into consideration that an urban settlement attracts population due to the search of greener pasture in the town.

Adequate structures and facilities should be properly installed with proper allowance for the future generation. Take for example sewage lines and others.

4. Public Support: public and key professionals such as planners, economists, geographers and health, workers needs to understand the implications of current environmental and population trends and to develop a consensus on appropriate actions.

Without this backing it is difficult for political leaders to support long term strategies that may entail higher cost and changes in patterns of consumption.

The mass media, community leaders, schools, and out of school programmes can help build public understanding and support.

5. Non Governmental Organization: private agencies have been at the fore front of the environmental movement, advocating policy changes, educating the public, initiating various community projects, organizing coalitions, conducting research and showing information.

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APPENDIX I
QUESTIONNAIRE FORM FOR ASCERTAINING THE
INDIVIDUAL
PERCEPTION ABOUT THE ENVIRONMENT IN MUNICIPAL
AREA
COUNCIL – ABUJA

The under listed questions are to be answered by participating residents staying in the city and around the municipal area council. This questionnaire will produce vital answers that will be used for the purpose of this study.

SOCIO – ECONOMIC INFORMATION

1. Name of the participant.....
2. Age.....
3. Language..... Spoken..... Written
English.....
Hausa.....
Gwari.....
Gwadara.....
Gade.....
Igbo.....
Yoruba.....
Specify.....
4. Sex.....
5. Marital status.....

6. What level of education have attained? None/Primary (ceramic)
Adult literacy/tertiary/others.....
7. What is your main occupation? Farming civil
servant/others.....
8. Procurement of land
 - (a) Inheritance..... (b) Lease.....
 - (c) Out right Purchase..... (d) Short- term Rent.....
9. What do you really feel/see or hear about your environment.....
10. Do you achieve your maximum comfort in your environment
Yes/No?
..... Specify
11. For how long have you been engaged in your occupation?
12. If you are a livestock former, what size of grazing about
today?.....
13. What other sources of income do you have beside this activity
under :
ii?.....
14. what critical environmental problems have you ever
experienced, since your practices?.....
15. what type of vegetation you find here before now? Woody,
Grassland/thick forest etc.....
16. (a) if you are a farmer, has the fertility on your farm
improved?
(b) Improved.....Reduced.....
is there, or has there been any land dispute in your
area/.....
17. What is your attitude towards deforestation on a
forestations?.....

18. Do you make use of woody as a source of your energy?.....
19. Have you observe any change of weather in your area?.....
20. How do you dispose your waste?.....
21. Any health problem as a result of population pressure?.....
22. What are the major production problems? Fertilizer insecticides.....Fungicides.....labour..... money.....
23. What farming system do you practice?.....