ENVIRONMENTAL AWARENESS AND ATTITUDES AMONG DEVELOPMENT PLANNERS IN MINNA TOWN NIGER STATE, NIGERIA

BY

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M.TECH/SSSE/2005/1357

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SUBMITTED TO THE POSTGRADUATE SCHOOL, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF TECHNOLOGY (M.TECH) IN GEOGRAPHY WITH ENVIRONMENTAL MANAGEMENT (ENVIRONMENTAL DEVELOPMENT PLANNING)

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CERTIFICATION

This thesis titled Environmental Awareness and Attitudes among Development Planners in Minna Town by: Mohammed, Aishatu (M.Tech/SSSE/2005/1357) meets the regulations governing the award of the degree of Master of Technology (M.Tech) of the Federal University of Technology, Minna and is approved for its contribution to scientific knowledge and literary presentation.

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DECLARATION

I hereby declare that this thesis titled "Environmental Awareness and Attitudes among Development Planners in Minna Town" is an authentic study carried out by me and has not been presented elsewhere for any form of award academically.

05/09/08

Mohammed Aishatu

DEDICATION

This work is dedicated to my husband and son, whose constant support, understanding, love and prayers saw me through this programme

ACKNOWLEDGEMENT

In carrying out this project, I acknowledge the will and power of the Almighty Allah to have spared my life and wished that I undergo this programme.

I owe all my lecturers, friends, colleagues and family gratitude for their understanding, forbearance and patience with me.

To Prof. J.M. Baba, who made me realize that there is success in hard work the only summarizing words would be thank you and God bless!

ABSTRACT

Environmental awareness and attitudes among development planners in Minna town is a relationship explored in this study to examine the inclusion of environmental concerns and management approaches into policy document. It also assesses the environmental awareness of policy makers and examines the extent to which mainstreaming environment into development policies have been achieved in Minna town. The study undertook survey research of 42 development planners in Minna town. The research data on awareness and attitudinal characteristics of development planners as it relates to the environment were obtained using questionnaires. Four core issues formed the thrust of the analysis directed at testing hypothesis Ho_1 and Ho_2: Awareness of environmental degradation/conservation; environmental impact assessments (EIA); government developmental policies and environmental education. Three approaches were employed in the analysis of the responses: Percentages of each core issues were found; Stacked bar chart produced; and finally Pearson correlation analysis was carried out on each core issue. The result obtained revealed that the levels of awareness were very low among the development planners. From the results obtained it was recommended that development planners need to be aware of the impact of their plans and action on the environment. Research along these lines has important implications on policy as attitudes of the development planners have impacts on policies designed to take care of environment.

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CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND TO THE STUDY

In recent decades, environment and its associated problems have assumed a place of prominence in social, political, economic, military, scientific and foreign affairs discourse. This development arises from the uncontrolled rapid population growth rate, acute poverty, hunger disease, filth, poor sanitation, air pollution, water pollution, deforestation and biodiversity loss, erosion and flooding, desertification and drought which are now widespread in different parts of the country (Federal Ministry of Environment/United Nation, 2005).

Today, there is a national and international understanding of the need to minimize these adverse environmental problems and maximize major advantageous environmental conditions that could result from a planned and sustainable use of the natural and built environment. The rational path to make development sustainable in Nigeria is to fully integrate environmental concerns into socio-economic development plans and ensure that relevant policies and legislations are implemented and enforced. It is hoped that this will help shape public policy for the overall benefit of the society, the economy and the ecosystem. If these three efforts are well managed, they will improve the 3Ps i.e. (people, profits and the planet).

Since Nigeria became independent in 1960, most of the development projects were conceived, planned, constructed, operated and put into use without adequate considerations for the environment. Consequently, natural and environmental resources degradation and pollution remain as major problems. Degradation of the natural resources implies that the livelihoods of Nigerians in general, and the

vulnerable groups (e.g. women and children) in particular, are being negatively impacted thereby exacerbating their level of vulnerability and poverty. Although the government has taken some actions including institutional, legal, and financial commitments to tackle the twin problems of poverty and environmental degradation, yet the problems persist, emphasizing the fact that environmental degradation and poverty reduction are so mutually interdependent that one can not resolve one without the other. Herein lies the challenge of environmental awareness to development planning.

1.2. ANALYSIS OF THE NIGERIAN ENVIRONMENTAL SITUATION

Environment is today the most topical issue on the agenda of many nations in the world. This is particularly so because of the environmental problems facing mankind. Globally the problems are alarming with emerging frightening consequences.

Environment problems do not stop at national borders; Ebin (1993) states that over the years, the Nigerian environment has increasingly deteriorated as a result of human activities of various ramifications on the environment. For example the annual rate of deforestation of woodlands in Nigeria averaged 3.5 percent (between 1980 – 1990) from logging or timber exploitation, bush burning, and demand for fuel wood. These human activities have resulted in severe erosion, silting and drying up of streams with serious consequences on the ecosystem. Desert encroachment is threatening human life in many states of the North especially Kebbi state and Jigawa. Overgrazing seriously increases the vulnerability of these areas to desertification.

Pollution from oil spillage is incriminated to cause large-scale destruction of the ecosystem in the Niger – Delta area with significant effect on human and marine life. This, as well as the demand for resource control, has led to social strife and conflicts. Oil spills, solid wastes and industrial effluents have contaminated much of the national water resources, resulting in the destruction of mangrove and other vegetation in the Niger Delta (Onosade, 1996). Acid rain resulting from gas flare and industrial activities corrode roofs of houses, affect monuments and cause infertility in fisheries.

Erosion problems are high in many states of southern Nigeria and in some states of the north. The Nipa palm from Malaysia invaded the mangrove swamps of the Niger Delta spreading aggressively across the coastal vegetation. Similarly, water hyacinth is also a serious menace in polluting water and obstructing water transportation. Dam failures causing devastating floods have been recorded. Flash floods are problems of concern in major cities of Nigeria. After heavy rains in Lagos, Ibadan, Warri, Port-Harcourt and many other cities, there are severe floods that disrupt movements and traffic. According to Ogwuegbu (2004) in 2001, lecturers of the Cross River State University of Technology (CRUTECH) had to abandon their residential quarters for several months because of flooding. Mining and quarrying in areas like Jos, Ogun, Nassarawa, Oyo, Edo and Enugu States, have not only devastated the landscape, they pollute the land, air and water which adversely influence the ecosystems.

Increasing pollution of the environment from municipal solid wastes is also a common feature particularly in the urban areas. The problem of solid waste is a menace, in major cities of Nigeria with heaps of rubbish littering the streets with

health implications. The non-biodegradable household petrochemical products such as polythene bags, plastic containers, used tyres, among others have very grave consequences for the environment.

Environmental problems in Minna town are undoubtedly, quite diverse in nature and of significant dimensions. Minna town is undergoing not only economic stress but also social, political and environmental stress.

Disease, filth, malnutrition and hunger are on the increase. There is considerable pollution of air, water and land. Apart from water pollution, water scarcity evidenced by the number each day of jerry can – carrying urban inhabitants is a very serious problem. There is overcrowding homelessness and poor living conditions. Poverty is on the ascendancy and deforestation has intensified as a result of increase in the prices of petroleum products especially kerosene.

Unemployment is overwhelmingly on the increase. Indeed statistics show that 15% of the Labour force in the country is unemployed (National Planning Commission, 2004). Infrastructure such as roads to help the farmers transport their farm produce to the market are unusable especially in the rural areas.

Drugs are scarce and expensive. Where available, they are not affordable for most people, especially the poor. The forests are shrinking, the rivers are drying up and the weather is inclement. The scenario is that of a depressed society.

Perhaps the most distressing issue is that even the ecological funds provided by the Federal Government of Nigeria to states have not been effectively applied to the solution of environmental problems. Similarly, policies aimed at improving the well being of the people and the quality of environment as well as reducing poverty have generally failed.

1.3 **STATEMENT OF THE PROBLEM**

Niger State is one of the thirty six (36) states of the federation. It is located in the north central part of the country with Minna town as its capital city (Appendix 1).

Minna town faces problems associated with any developing city in Nigeria. One of such problems include environmental degradation in the form of mountain of refuse, the loss of protective vegetation through deforestation, soil erosion problems, land, water and air pollution. These problems have impacted negatively on the inhabitant of Minna town being the capital city by reducing its aesthetic beauty and increasing environmental problem.

These problems may be due to rapid – urbanization of the town. A walk round the streets of Minna reveal that the majority of the people are living in squalid, dirty, unhealthy houses, streets and drainage lines. Much improvement is obviously necessary.

Since the inception of the present civilian administration headed by Dr. Muazu B. Aliyu in May 2007, there has been a development policy of Minna urban renewal. This policy as can be seen started along Government House road. Dualization of the roads has impacted so much on the environment through massive felling of trees along existing avenues. Some of these trees were planted since colonial period and are a veritable component for preventing soil erosion, it also serves as heat regulator thus when it is removed the surface is exposed to direct heat from sun, destroying the shade-loving soil micro and macro organisms which may have some very serious implications on the environment.

These call for urgent need to change the attitudes and awareness of development planners of Minna town ship.

1.4. JUSTIFICATION AND SIGNIFICANCE OF THE STUDY

Protecting the environment has become one of the greatest challenges in Minna town today. It is in line with global imperative to achieve sustainable development and the Millennium Development Goals which seek to eradicate poverty and hunger(Goal 1), improve health(Goal 5), ensure environmental sustainability (Goal 7) among others. Above all, it is the right of man to live in a decent and healthy environment because the right to environment is a fundamental one and should be accorded the same importance as the right to life, which is a constitutional right. This is because a poor, filthy and putrid environment is likely to affect the health of man and lead to untimely death. So the right to a safe environment is as important as the right to other basic freedoms.

It is against this background that it has become important and instructive that both policy makers and the ordinary citizens in Minna town be adequately sensitized on environmental issues that must be addressed if any meaningful progress should be achieved. An even more compelling reason for Development planners involvement in environmental sustainability is the need to integrate environmental considerations into all policies, plans and programmes in order to ensure that Minna town socio-economic policies address environmental problems. There is no doubt that some success has been achieved in creating awareness, but much remains to be done to change the attitudes of the people, especially the policy makers and the influential, so that their professed understanding is matched with concrete action.

1.5. HISTORY OF THE STUDY AREA

Information from Minna city consultation (undated) suggests that "Minna" is a corruption of the Gwari word "Myina" meaning "to spread fire". The cultural root is

anchored in an annual spiritual bonfire festival, which used to be celebrated long ago in front of the chiefs resident on top of the Paida hill. This further suggests that the original dwellers, the Shako or Minna Gwari, were hill dwellers. A situation that may be explained by the need for security at a time of general social turbulence occasioned by slave raids.

The modern history of the present Minna can be traced from 1905 when the railway line was extended to the town from Baro. This development attracted professionals, technicians, laborers, traders and so on to the town, some of whom settled permanently while others shuttled between Minna and other towns for trading purposes.

Physical and social developments after 1905 led to the setting up of administrative machinery for the governance of the city.

In 1910, the first major administrative change took place when the Sarkin Kuta was asked to move to Minna by the Colonial Resident Officer who was planning to establish a new headquarters in Minna. The Sarki, for fear and suspicion of working with the Hausas who already had prominent presence in the town, turned down the invitation. Following this development, the Sarkin Wushishi was invited to take leadership in Minna. He obliged and the headquarters of Kuta Division was then relocated to Minna. The division comprised nine administrative districts namely: Wushishi, Kuta, Paiko, Galadima Kogo, Fuka, Maikunkele, Bosso, Guni and Gini. Consequently, Sarkin Kuta was down - graded to third class chief while Sarkin Wushishi was promoted to second class chief.

The Sarkin Wushishi – Ibrahim - upon arrival in Minna, appointed Mallam Mau'zu Sokoto as the Local native judge "Alkali" being learned in Islam and the

Qur'an. The Resident Officer Captain Taylor-also a magistrate appointed one Adamu as Sarkin dillalai (head of middle-men), Lemon Garko as Magajiyan Mata (head of Women), Mallam Uba as Sarkin Pawa (head of Butchers) and so on. The Sarkin Wushishi ordered the building of houses for the chief of the town and the judge, Mu'azu. Mu'azu was also performing the duties of Limanchi (Imam) as well as native treasurer (Maaji) but around 1917, the official Imam was appointed in the person Mallam Aliyu.

In 1920/21, the Kuta Division was reorganized and Sarkin Wushishi was sent back to Wushishi and the headquarters of the Division was relocated to Kuta. The administration of Minna was left in the hands of Sarkin Bosso, Abubakar Zarumai.

In 1924, the Resident Officer moved his seat from Bida to Minna in defiance of the Sarkin Minna. The same year also saw the appointment of the Sarkin Kasuwa, Mallam Danjuma, as the Sarkin Hausawa. Other appointments made for the purpose of easing the administration of the town included those of Mallam Dan Bauchi as the Head of the Laborers (Sarkin Aiki), Mallam Sani as Head in Charge of the Market (Sarkin Kasuwa). Sarkin Malamai as the head of Scribe of the town. Mallam Amihu as the head of Yoruba residents and Mallama Audu as the Head of the Nupe residents. In addition to these, twelve bodyguards (dogarai) were recruited from Kuta.

Between 1922 and 1933, it was reported that Minna remained without much progress until the Gwari's and Kamukus formed a united front in a Gwari/Kamuku federation to fight for recognition and place in the scheme of things. Consequently, the headquarters of Kuta Division was once again relocated from Kuta to Minna and so also was the Native Authority and the police.

The Minna town council was established in 1934. Another reorganization took place on 13th November, 1950 which led to the abolition of the town council, the creation of ward administration and the appointment of Alhaji Ahmadu Bahago Kuta (CON) as both the Sarkin Minna and Sarkin Kuta in council. Six wards were created namely: Nasarawa, Kwangila, Keteren-Gwari, Makera, Limawa and Sabon-Gari. Paida became the seventh ward in 1959 as a result of population growth. As at year 2000, there were 17 wards, headed by ward heads(Mai Unguwas). These wards are: Limawa; Nasarawa, Tudun-Wada, Kpakungu, Tayi, Kwarkwata, Makera, Sabon-Gari, Barikin-Sale, Fadikpe, Nyikangbe, Unguwan Zakka, Dutsen-Kura, Shanu, Albishar, Sabon-Nassarawa and Gbadai.

In 1976, when the old Niger province was excised from the former North Western State, the city became the capital of then new Niger State, a status that it has retained up to the present time. In addition to being the State Capital, Minna also presently serves as the headquarters of Chanchaga Local Government which comprises ten wards (i.e. Nasarawa 'A', 'B' and 'C', Sabon-Gari, Tudun-Wada North and South, Makera, Minna (i.e. Sauka Ka Huta, Bosso, Maitumbi and Chanchaga) form part of Bosso Local Government, headquartered at the rural satellite settlement of Maikunekele. This is to say that urban Minna is presently under the jurisdiction of two Local Governments – Chanchaga and Bosso However, both Local Government form part of the Minna Emirate under the jurisdiction of the paramount traditional Head, the Emir.

SOCIO-ECONOMIC SETTING

The economy of the city is sustained basically by informal activities as opposed to industrial with which urban areas are usually associated. A large number

of the residents are also employed in the civil service sector (Federal, State and Local Government Secretariats and educational institutions, from the primary to the tertiary levels). An insignificant number of people also find employment in banking, insurance and few private firms.

PHYSIOGRAPHIC ASPECTS

Physical Setting:

Minna is located on Latitude $9^{O}37'$ North and longitude $6^{0}33'$, east and occupies an area of about 884 hectares. The Bosso Local Government Area encapsulates it. It is about 145km by road from Abuja, the Federal Capital of Nigeria. The Minna metropolis has grown to engulf suburb settlements such as Bosso, Maitumbi, Dutsen-Kura, Kpakungu, Shango and Chanchaga (Appendix 2).

According to the Minna Master Plan (1979), the city is under-lain by undifferentiated basement complex of mainly gneiss and magnetite. The North Eastern part of the city is characterized by a more or less continuous steep outer crop of granite which occurs and limits any urban development in that direction. The rock outcrops are being quarried for use especially in the construction industry, Minna is an urban settlement with almost all the necessary infrastructure (Communication services, electricity, water supply transportation, Markets, etc) and social characteristics.

1.6. RESEARCH AIM AND OBJECTIVES

The aim of this project is to determine the level of awareness on environmental management and conservation among development planners in Minna

The objectives therefore are to:

(i). Assess the environmental awareness of policy makers and executors of Minna Development Programme.

(ii). Determine the level of inclusion of environmental concerns and management approaches into policy documents of Minna development

(iii). Determining the extent to which mainstreaming environment into development policies and plans have been achieved in Minna town.

1.7. RESEARCH HYPOTHESES

The following null hypotheses will be used as guide to the data collection and analysis to be carried in this study.

Ho_1: Development Planners in Minna town are unaware of environmental management issues.

H_{A1}: Development Planners in Minna town are aware of environmental management issues;

Ho_2: Environmental concerns and management approaches do not form a part of policy documents detailing the Minna town development planning.

H_{A2}: Environmental concerns and management approaches form a part of policy documents detailing the Minna town development planning.

1.8. SIGNIFICANCE OF THE STUDY

This research work will be based on the consultation of primary sources of data, and will be designed to serve as a reference literature on environmental awareness and attitudes among development planners in Minna town. The work is also meant to serve as a guide to policy-making agencies, especially those involved in regulating the human use of and interaction with the environment.

1.9. SCOPE OF THE STUDY

The scope of this project will encompass an assessment of the level to which environmental awareness efforts of the government has had positive impact on development planners in Minna town. The level of awareness of environmental issues as a central pivot of the National Economic Empowerment Development Strategies (NEEDS), State Economic Empowerment Development Strategies (SEEDS) and Local Economic Empowerment Development Strategies (LEEDS) amongst policy administrators will also be assessed as part of the scope of this study.

1.10. LIMITATIONS OF THE STUDY

As usual with similar social research, undertaking this research work is not without problems in the course of data collection. The time of the project will certainly affect the comprehensiveness of the work. Hence the data collection is going to be limited to development planners in the planning and statistics department of various Ministries and local government in Minna town.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. THE STATE OF THE NIGERIAN ENVIRONMENT

Nigeria is a large country in West Africa with an area of 923,768km^2.It is endowed with abundant natural resources (crude petroleum, gas, forests, wildlife, water, fisheries etc) and highly rich and varied ecosystems that range from the mangrove swamps and rainforests in the south to the savanna woodlands, and semi-arid zones of the far north. The country has an intriguing array of fascinating landforms and landscapes of varying soil type and vegetation patterns. There are about 250 distinct ethnic nationalities with rich diverse cultures (Federal Ministry of Environment/United Nation, 2005).

Despite its vast natural resources and rich cultural heritage, at least 67 million Nigerians live in poverty (FOS, 1998). Available data from development analysts, the National Planning Commission (NPC) and the United Nations Development Programme (UNDP, 1997) as well as other development indicators suggest that Nigeria is not doing very well in terms of sustainable human development. One implication of underdevelopment is considerable pressure on land and water resources by intense exploitation which results, in environmental degradation, depletion of renewable and non-renewable resources and pollution of air, water and soils. Another implication is that Nigeria's high population growth rate of about 2.7 per annum will definitely compromise government ability to provide social securities such as education, health care, housing, employment, as well as other securities necessary for maintaining good quality life. The

issue of the environment and its sustainability has become crucial for policy making around the world. There is the need for urgent action especially since the United Nations Conference on the Environment and Development (UNCED), 1992 in Rio de Janeiro.

Water pollution is a serious environmental problem in Nigeria. Nigeria's water supply is inadequate both in quantity and quality. Pollutants released into the water, soil and air find their way into the human body through the food chain. Water-related diseases constitute about 80 percent of the total disease burden in Nigeria, (Ogwuegbu,2004). NEST 1990 reported that most of the existing industries discharge their effluents without any form of prior industrial treatment into the rivers, lagoons, estuaries and the sea. Some of these are known to contain such toxic substances such as DDT, dyes, cadmium, etc, that ultimately contribute to pollution of water and destruction of aquatic life.

According to Oyebanji (2000), communicable but largely preventable diseases like guinea worm, measles, tuberculosis, diarrhoea, schistosomiassis, typhoid, cholera and dysentery are still prevalent. These also account for significant high morbidity and mortality. Indeed, in developing countries 80 percent of all diseases result from a combination of poor hygiene, contaminated water and poor sanitation. This obviously is why inadequate water and sanitation hinder socio-economic development particularly against the backdrop of unstructured urbanization and rapid population growth.

Heaps of undisposed municipal solid wastes are everywhere. Unsightly and unauthorized waste dumps are common sites in major Nigerian cities and towns.

According to Onosode (1996) the per capita waste generation for Nigeria is about 0.5kg per person per day. This figure may seem small at the individual level, but at the national level, the figures can become staggering. With urban population on the increase, Lagos city alone generates about 500,000 metric tones of solid waste each day (Ebin, 1993). It is common to see streets overtaken by garbage and drainages filled with solid wastes, thereby blocking accessibility to roads. The environmental and health impacts of poor solid waste management are major challenges for sustainable development.

Urbanization is an inevitable process and it has a positive correlation with industrialization. However, when it is rapid and unplanned as in Nigeria, the process creates a chain reaction. All our cities and urban centres manifest glaring qualitative and quantitative deficiencies of housing, roads, municipal services and urban infrastructure.

According to Uche (2000), poverty in Nigeria developed from the failure of public policy. The Nigerian Human Development Report of 1996 confirms that Nigeria has faired worse in poverty ranking. The Human Development index (HDI) for Nigeria in 1998 was 0.391 and Nigeria ranked 142nd out of 174 countries surveyed. The ranking depreciated by 2001 to 0.439 putting the country at 151 position among 174 countries.

It is a matter of serious concern that the very laudable legislative and policy initiatives by the Federal Government have not yielded the expected results. Reasons include: lack of effective environmental management, weak enforcement of

environmental legislations, lack of inter-sectoral co-operation and co-ordination, and policy failures among others.

According to Uche (2000), the National Environmental Policies emphasize command and control rather than market based incentives in which stakeholders are involved. Another problem is that certain constitutional provisions on the environment place the authority for implementation with the Federal Government rather than the state, resulting in conflicts between the Federal and State Governments. Examples of such problems are exploitation of the natural resources situated above or below ground offshore and onshore dichotomy in respect of crude oil exploration. Policy failures of this nature have had profound adverse effect on the national effort to manage the environment sustainability.

One of Nigeria's main challenges is provision of adequate energy to a rapidly growing population in a sustainable manner. Combating poverty and empowering the poor through effective environmental management and integrating environment policies, plans and programmes, as well as evolving appropriate, implementable strategies for poverty reduction remain crucial. Policies on pollution control and infrastructural development will boost agricultural and rural industrialization; reduce rural – urban income disparities and migration. Thus, the major challenges for development are to have a safe development and healthy environment that secures the economic and social well being of the present and future generations.

Legislations to control pollution are not always enforceable due to lack or absence of institutional backing, weak political will reinforced by short-term economic consideration and political patronage. Another reason is the issue of locus stand in

environmental matters relating to persons not directly affected by environmental injury.

Dowdeswell (1993) aptly puts this as "the right to a healthy environment is an extension of the right to life". By implication, anyone especially environmental NGOs acting not for their personal interest but with a view to generally preserve and protect the ecosystem should have a right to sue. This calls for judicial reform to expand or allow some level of flexibility on the issue of locus standi, with a view to accommodating the positions of environment NGOs who is interested in protecting the environment.

Another reason for the weak enforcement of environmental legislations is that the penalties prescribed by the environmental laws of Nigeria are no longer realistic with regard to current economic realities. There is need for environmental court with defined authority to act expeditiously because a criminal offence is different from an environmental offence such as dumping of toxic wastes, which can kill.

It is therefore of utmost importance to ensure that environmental laws are enforced speedily in order to achieve the desired objectives for which they were enacted.

2.2. WEAK INTER-SECT ORAL CO-OPERATION AND CO-ORDINATION

The environment, being a crosscutting issue, has a number of ministries, agencies and parastatals involved in the implementation of Nigeria's environmental policy. Being a crosscutting issue most Government ministries, agencies and parastatals, donor Agencies and international organizations in Nigeria are involved in

environmental matters. Each of these ministries, agencies or organizations has different concepts and approaches to implementation of the environmental policy of Nigeria. Sometimes functions overlap, and difficulties arise with regard to co-ordination of their activities. There are also institutional rivalries and personality and role conflicts in the implementation process of clear separation and delineation of responsibilities between Federal and State enforcement organs.

2.3. **ENVIRONMENTAL POLICY INTEGRATION (EPI)**

Environmental Policy Integration (EPI) implies the incorporation of environmental objectives into all stages of policy making in non-environmental policy sectors, with a specific recognition of this goal as a guiding principle for the planning and execution of policy.

EPI is one of the most important policy references to emerge from the process following UNCED – (the United Nations Conference on Environment and Development) in 1992. According to Okoro (1990), EPI involves the placing of environmental considerations at the heart of the decision making process in other sectors. In the pursuit of sustainable development, the strengthening of EPI is thus a major governance issue.

EPI is the integration of environmental concerns into the mainstream of policies in general, which signals the emergence of sustainable development as the guiding principle of societal development. With sustainable development environmental policy has become much more than pollution control and protection of

nature. It becomes a process of qualitative reappraisal of prevalent development patterns.

Relationship between the environment and the Millennium Development Goals, according to the World Bank (2003) report, is on the physical, biological and socio-cultural environments which are inextricably linked. This is evidenced in the Millennium summit's declaration in which explicit reference was made to important environmental issues such as biodiversity, deforestation, climate change, desertification and water management. The centrality of the environment to the MDGs is encapsulated in Goal 7. The targets associated with the Goal are all about mainstreaming the environment in policy and programmes, reversing the loss of environmental resources and improving access to health and environmental services.

Promoting social justice, job opportunities for youths, improvements in agriculture and health care delivery for example, may be the key to reducing hunger and the multidimensional problems of extreme poverty in developing countries. Equitable access to potable water supply and sanitation facilities, coupled with good individual/community hygiene practices, will reduce infant and under – 5 mortality. Climate change could favour the breeding of disease vectors resulting in increased incidence of vector-borne diseases like malaria, onchocerciasis, yellow fever and sleeping sickness. Climate change may also result in natural disasters (e.g. flooding), which may in turn reduce household income and destroy the infrastructure for health and education. Sustained loss of biodiversity may result in demised carrying capacity of the environment with disastrous consequences for human survival.

NEEDS (2004)insists that every Nigerian has the right to adequate water and sanitation, nutrition, clothing, shelter, basic education, and health care, as well as physical security and the means of making a living. It proposes a contract between the Nigerian people and their government in the form of a social charter, or bargain. The charter recognizes the people's rights to government services that provide basic needs for life. In return, the people agree to work hard and honestly to make NEEDS a success.

Also, NEEDS recognizes that poverty has many strands and must therefore, be tackled from several directions at once. It recognizes that the government must work not only to improve incomes but also to address the many other social and political factors that contribute to poverty, such as lack of job opportunities, housing problems, lack of health facilities, lack of educational facilities and so on.

2.4. **MAINSTREAMING ENVIRONMENT**

Integrating environmental concerns into sectoral policies, plans and programmes is the ultimate goal of environmental consciousness and practice. This stimulates activities, attitudes and relationship for the achievement of sustainable environment, and for sustainable development and poverty reduction. A key element in human capital oriented strategy for environmentally sound and sustainable development is education. Education is an index of self-enhancement. Improved access to and the quality of education contributes to the ability of people to use natural resources more effectively and sustainable.

According to Wheeler and Martin (1975), relationship exists between education and the environment with a close connection between the quality of

education and the quality of environment. They postulated that a child brought into contact with the profound realities of his/her physical environment would not only be more likely to learn better, but would also develop a creative attitude towards his/her surroundings.

The prevailing situation in Nigeria calls for an educational programme for all citizens, that focuses on the specific changes that have altered our land water and vegetation, as well as the consequences of these changes on all life forms including man. The national policy on environment (1990) recognizes education as a dynamic instrument of change and the relationship between man and nature as well as the need to develop sound and sustainable means of resources exploitation through basic education. To this end, the national policy recommended that government shall:

Promote comprehensive curriculum reviews that integrate environment and development concepts in the educational systems. Support the development of courses, and programmes leading to the award of degrees and diplomas in environmental education, environmental sciences, and management and technology.

Energy is a key factor in environmental mainstreaming. The major sources of energy in Nigeria include fossil (petroleum, coal, and natural gas), renewal energy (geothermal, solar, wind and biomass) and electricity generated from hydro and thermal stations. According to Olokesusi (1992), Nigeria's main environmental challenges associated with energy development and consumption result from oil spills, gas flaring and deforestation. Petroleum development activities in the Niger Delta region, especially, have caused severe environmental degradation. Oil spills weak

environmental regulations and failure to enforce the set regulations are largely responsible for the situation, Nigeria continues to suffer the effects of oil spills, as well as air pollution from the flaring of gas which occurs during the exploitation of oil.

The use of Biomass has substantial environmental drawbacks. The indoor air pollution from invented bio-fuel cooking stoves is probably a major cause of respiratory illness in many parts of Nigeria. Reliance on biomass (especially in the form of charcoal) also encourages land degradation. The fuel wood that is being supplied for domestic energy results in deforestation. Biogas production from animal wastes can be used to reduce environmental pollution while providing energy for domestic purposes.

According to Olokesusi (1992), government should seek to mainstream environmental concerns into its energy policies by subjecting development in oil and gas to the environmental assessment process prior to decision making. Energy production and consumption should be seen within the larger framework of sustainable development. Tighter regulations and better enforcement of existing environmental laws should help stem the tide of degradation of the environment and prevent the same type of problems in the future.

Birley (1995), emphasized that environment is everything around us, the air we breathe, the water we drink and use for numerous purposes and the food we consume. It also contains toxic and hazardous substances (e.g. noise and dust) and biological components (e.g. pathogens and parasites which we come in contact with everyday.

Human activities and interactions with the environment could have grave consequences for public health and poverty in Nigeria. Thus the environment which sustains life and human health is also a profound source of ill – health for Nigerians. He emphasized that environment health hazards resulting from outdoor and indoor air pollution, contaminated (unsafe) drinking water sources, indiscriminate excreta and solid waste disposal in urban slums, substandard housing, over crowding and lack of basic sanitation facilities usually result in ill – health, disease disability and death.

According to the Federal Ministry of Health (FMOH, 2003), diarrhoea and acute respiratory infections (ARIS) accounted for 19% and 16% of under five mortality respectively. By contrast, malaria and ARIS accounted for 41% and 24% of under-five morality respectively.

In order to reduce the burden of environment-related diseases in Nigeria there must be an appreciable sustainable improvement in the environmental conditions that constitute hazards to public health.

Solid minerals industry is another sector Nigeria is richly endowed with. The solid mineral deposits include coal, tin, limestone, gypsum, barites, Kaolin, bitumen, talc, assorted gemstones, uranium lead, gold and zinc (Nigerian economic summit, 1996). Mining of coal, gold, and tin pre-dates Nigeria's independence. Cities like Enugu and Jos owned their rapid growth partly to the development of coal and tin respectively. These two solid minerals were sources of foreign exchange before the discovery of crude oil in large quantities. To ensure orderly and sustainable development of this sector the Ministry of Solid Minerals Development was

established in 1995. However, the country's earnings from solid minerals export has been low, as the sector accounts for less than 0.l5% of the GDP because of lack of regulatory framework and inadequate funding.

The viability of the agricultural sector is crucial to the growth and development of a nation, especially one with an increasing population such as Nigeria.

According to Bisong (1994), the sector strongly impact food security, industrialization efforts, quality of life, economic growth, political stability, and even international trade and relations. The sustainability of the agricultural sector is of paramount importance, and it is necessary to establish and maintain a balance between agricultural production and environmental protection.

There is the need for government to emphasize on the promotion of ecologically sound and profitable farming systems, and appropriate development programmes aimed at small-scale farmers. In order to increase and sustain a high level of agricultural production, a comprehensive approach is required to ensure proper use of natural resources and judicious application of agricultural inputs, like mechanization.

According to Chamber, *et al* (1992), alteration in vegetation cover as a result of large-scale deforestation and land clearing for agricultural purposes affects the micro climate and the loss of the carbon "sink" (absorption) functions of forests. This contributes to global warming and climate change.

A degraded environment is one in which not only the air and water are polluted, but also one which is degrading to its inhabitants because it denies them the opportunities for development and utilization of their full potential, and subjects them to stresses and strains to which they cannot adjust (United Nations, 1971).

According to Agbola (1985), A degraded environment is therefore, not only an area where filth abounds or where basic amenities are absent or inadequate, but where ambitions are dwarfed and materials and human potentialities remain untapped, undetected or unutilized.

The disturbance in the environment and the attendant health hazard is not expected to be bated without a deliberate effort toward environmental planning, management and control. For example, according to the Guardian (1999), as stated by Jimoh and Fabiyi (2000), the continued poverty of the majority of the planet's inhabitant and excessive consumption by the minority are the two major causes of environmental degradation.

From the report the developed world must cut its use of natural resources by 90 per cent to give the rest of the world a chance to emerge from poverty. The present findings of the menace of a global environmental problem are in consonance with what the UN General Assembly concluded in 1983. Poverty was identified as a major cause and effect of Global environmental problems. It was opined that it is futile to attempt to deal with environmental problems without a broader perspective that encompasses the factors underlying world poverty and international inequality. These concerns were behind the establishment in 1983 of the World Commission on Environment and development (WCED) by the UN General Assembly (The World

Commission on Environment and Development, 1987). The Commission's mandate gave it three objectives: to re-examine the critical environment and development issues and to formulate realistic proposals for dealing with them, to propose new forms of international cooperation on these issues that will influence policies and events in the direction of needed changes, and to raise the levels of understanding and commitment to action of individuals, voluntary organizations, business, institutes and governments.

Scholars on the philosophy of development and environmental management agree that environmental management is much more than the control of nuisances, rather, it means a philosophical orientation entailing the conception of planning for a liveable environment. To ensure an environmentally sustainable development in the urban centres, the search light should be focused on the subsystem of the broader environment. To ensure an environmentally sustainable development in the urban centres, the search light should be focused on the subsystem of the broader environment.

Arguably the first step in the effective control and management of the environment is in the development of public environmental awareness which Chokor (1985) defines as a synthesis of people's conception, interpretation and perception of environmental issues.

One of the pioneering attempts to evaluate the response of people to industrial pollution in Nigeria was that carried out by Ozo (1985). He asserts that mental images that people hold of their environment are critical in their actions and reactions to the development of the environment. The task of pollution control and

management should therefore start with a campaign of enlightenment and an intensification of general environmental education.

In summary, environmental theorists seem to agree that there are multiples of environmental problems. To solve these problems to a large extent the environment has to be managed. There should be philosophical and institutional arrangements that would aid the planning, monitoring and controlling the disturbances in the environment.

Given the warning of GEO – 2000, as stated by Jimoh and Fabiyi (2000), any citizen of the world that ignores the degusting impact of an unmanaged environment does it at his own peril. Clean and hazard free environment is sine – qua – non to healthy livelihoods which is a panacea to growth. A strategy must be evolved that balances resource utilization for economic development and growth on one hand and an optimum environmental status on the other.

Environmental problems, be they natural or artificial can no longer be seen as occurring, they must be anticipated given their antecedents and their impact properly assessed.

Monitoring the environment involves checking, observing and recording information about the environment. This is necessary to prevent it from being destroyed by man's activities especially those involving sophisticated technology, to plan for future exploitation of it resources and to control the usually unpleasant effects of environmental mismanagement. Through adequate environmental monitoring, disaster or environmental problems are easily noticed and can be averted at least at a reasonable level.

In the developed countries of the world especially in the United States of America, through early warning the effects of strong and violent winds such as hurricane, tornadoes, typhoons on life and property can at least be reduced and in some cases are completely averted.

Uchegbu (1999), states that man in his development activities such as forest clearance, the creation of pasture, the expansion of intensive cultivation, the alteration of drainage system, systems and the creation of technology has increasingly changed the pattern of productivity of the natural world. As he has tried to modify his environment to suit him, he has consequently increased his numbers greatly. Before the industrial resolution, man has unscrupulously disposed of waste without much thought of its consequences. Global effect of environmental pollution is evident in these threats to life:

- The depletion of Ozone layer of the atmosphere which fiters of the Ozone layer of the atmosphere earth's surface.
- More desertification resulting in the reduction of arable or cultivable land.
- The melting of the ice-caps at the North and South poles resulting in rise in sea level every year with the consequent reduction of land mass (Nigerian Business Law and Practice Journal, June 1990).
- The depletion of oxygen from atmosphere by reason of pollution's threat to the microscopic ocean-dwelling phytoplankton, a primary source of oxygen on this planet.
- Oceans filling with toxic mercury, washed to sea by the cess – pool rivers from cities around the world. Environmental management is multi-

dimensional and comprises a lot of things including checking's and controls on natural factors and distribution of infrastructure in a way that will not hamper the nature of physical environment.

CHAPTER THREE

METHODOLOGY

3.0. INTRODUCTION

This chapter describes and presents the procedure used in carrying out the study. The research aimed at assessing the environmental awareness and attitudes among Development Planners and executors in Minna. The ways and means by which the object of the research is carried out are detailed in this chapter. The following are the subheading.

1. Research design and instrument
2. Enumeration and sampling techniques
3. Method of data collection
4. Data analysis

3.1. RESEARCH DESIGN AND INSTRUMENT

The design for this study involves the collection of data on awareness and attitudes among Environmental Development Planners in Minna. It also explores the probable impact of their planning on the environment and the gap in the overall management framework of development.

Within this research, information on a variety of issues were collected (awareness and attitudinal characteristics) particularly as related to the environment.

The survey instrument contains three sections:

Section A: Focused on individual respondent's personal data which include age, gender and place of work.

Section B: Dwelt on awareness issues of concepts of sustainable development, degradation factors in the environment and government policies bordering on environment.

Section C: Focused on questions probing the attitude of development planners and executors of development projects in Minna.

3.2. ENUMERATION AND SAMPLING TECHNIQUES

The population of interest to this research comprise the entire population of Development Planners in Minna town. The total number of such Development Planners was 42. The category of data collected includes data on assessment of level of environmental awareness and attitudes among development planners and policy executors in Minna town.

3.3. METHODS OF DATA COLLECTION

There were identified forty two (42) core development planners in Ministries and local government Councils in Minna town which include Directors Planning, Research and Statistics in some state Ministries and local government councils within Minna (Chanchaga, Bosso, Minna West Local Government). Others are Directors Planning, Research and Statistics in Primary Education Board, Secondary Education Board, Niger State Environmental Protection Agency (NISEPA) Urban Development Board, Science and Technical Schools Board in which all the 42 were administered questionnaires. Thirty-three (33) out of 42 development planners were state planners, while the remaining nine (9) were local government development planners (Chanchaga, Bosso, Minna Western Local Government). Five (5) out of the 42

development planners were females while the remaining thirty-seven (37) were male.

All the questionnaires administered were returned and validly completed with a response rate of 100 percent.

3.4. METHOD OF DATA ANALYSIS

The data collected in the course of this study were analysed and presented using frequency distribution and descriptive analysis. This enabled a clearer presentation and understanding of the result of the research.

Responses from various respondents were tabulated and mean values allocated. Comparisons were made between responses and the situation of the state of the environment in Minna town. Deductions made from analysis were the basis for ascertaining the state of affairs in the environment of Minna.

Relevant policy documents such as those of tourism, education, works and infrastructure were reviewed to determine the adequacy of provisions or otherwise of environmental concerns in development projects. These have far-reaching implications on the state of our environment especially in urban towns like Minna.

CHAPTER FOUR

ANALYSIS OF DATA AND DISCUSSION OF RESULTS

4.0 INTRODUCTION

The research data were obtained from responses to thirty-nine questions answered by 42 respondents. Attempts were made to analyse the responses in line with the core issues addressed by this study. Two issues formed the thrust of the analysis directed at testing hypothesis H_{o1}. These were awareness about environmental degradation/conservation, and environmental impact assessments. In the testing for hypothesis H_{o2}, two issues were also analysed. They were government developmental policies and environmental education. The research data extracted from research questionnaires comprising the close-ended questions were included as appendix 1.

4.1 ANALYSIS OF DATA

Three approaches were employed in the analysis of the responses. The percentages of responses relating to each core issue were computed in order to show general levels of agreement/disagreement. Stacked bar charts were produced to show the distribution of responses according to the gender of the respondents. Finally the correlation between the gender of the respondents and their responses was analysed, using Pearson Correlation Analysis. The results were presented in tables.

4.2 GENERAL STATUS OF ENVIRONMENTAL AWARENESS

i Awareness about Environmental Degradation/Conservation

Everyman is basically an economic man deriving his needs from his environment. That is, the survival of man depends on the exploitation of the numerous environmental resources for his use (Jimoh and Fabiyi, 2000).

The activities of man in his environment therefore includes agricultural practices, mining, quarrying, water resource exploitation, deforestation, afforestation, road and rail network constructions, construction of bridges, laying of pipelines as a means of water supply to an area or as means of transporting crude oil (petroleum) over a long distance to refinery stations and construction centres. These activities have a sole aim of meeting man's needs. These developments are contingent on the utility values arising from the environmental resources. However, this heavy dependence on environmental resources has translated into a number of environmental problems.

The environmental problems faced by the residents of Minna town is mainly that of tree felling (deforestation, appendix 4) to give way for road and housing construction. The effects of tree felling is that the soil is stripped bare, thereby becoming highly vulnerable to erosion by wind and water. Thus, depleting soils the medium for plant growth of its valuable nutrients and render it infertile. The felling of trees also makes the atmosphere warmer, the condition, which favours cloud dispersal hence low rainfall. Another problem is that of waste management (appendix 5). Without a collection service, households generally dump their wastes on any available empty sites or in nearby ditches or simply along streets, sometimes,

to the point where it actually block road. The result of these problems are smells, disease vectors and pests attracted by rubbish (rats, mosquitoes and flies), drainage channels clogged with waste and overflowing thereby causing serious health hazards. Since provision for sanitation is often deficient, many households disposed of toilet waste into drains so when drains overflow, they also spread excreta around the site. Alternatively, human waste are included in the waste for instance, the common practice for people to defecate into plastic bags where there is no toilets in their home, with these bags included in rubbish piles.

ii. Environmental Impact Assessments

Environmental Impact Assessment is simply the assessment of the impacts of proposed projects on the environment. It is an environmental management tool used to determine the impacts of a project operation on the environmental (Odiette, 1993). Environmental Impact Assessment is a process or study in which the potential physical, biological, economical and social impacts of a proposed development on the immediate and more distant environment are identified, analysed and predicated. Environmental Impact Assessment involves reckoning of both the negative and the positive externalities, from the spatial, inter-temporal as well as intergenerational perspectives. It is key mechanism for translating the principles of sustainable development into action. It is a decision that puts decision makers along the path of sustainable development (Odiette,1993) Environmental Impact Assessment considers all aspects of a project or operation from the planning stage through construction to commissioning.

4.3 TESTING OF HYPOTHESIS NO. 1

A total of eleven questions were answered in connection with environmental degradation/conservation. Of these only three were direct questions, intended to establish how aware the sample population was with regards to environmental degradation/conservation. The other eight questions sought to elicit further clarification from the respondents, and were thus multiple choice and open-ended questions.

Seventy-nine percent of the sample did not think it possible that present and future environmental needs could be provided for, that the environment of Minna town contained any degrading factors, and that the felling of trees planted within the Minna township had any negative effects on the environment. The level of awareness of environmental degradation/conservation among development planners and policy executors can thus be said to be rather low.

The following were given as reasons for the non-sustainability of environmental resources: (i) current rates of draw-down, over-population, corruption and bad governance and over-reliance on natural resources. Some respondents, who were in the minority however, felt that poor solid wastes disposal, vehicular emissions, deforestation and soil erosion counted as degradation factors in Minna. On the issue of how environmental conservation relates to development projects, half of the respondents believed that the aesthetic beauty of the environment could be thus maintained. Notwithstanding the risks of drought, soil erosion and desertification, 81% of the sample believed that township tree felling was justified because it allowed the construction of roads and farming activities to proceed.

Sixty-two percent of the sample selected awareness campaigns as the best means of preventing harmful environmental practices, as compared to 38% who favoured the application of sanctions on environmental offenders. 40% of the sample also considered the Minna township environment to be poor in terms of environmental sanitation. Only 14% perceived the environmental quality of the town to be good. To reveal how the respondents performed with respect to their gender, the chart in fig 4.1 was produced from the research data relating to the issue of environmental degradation/conservation. The chart showed that most of the affirmative responses received in the study came from female respondents. Given the very low proportion of the female gender included in the study sample (11.9% of the total study sample), it was apparent that the majority of the responses that were negative (31 respondents, representing 88.6%) were received from male respondents.

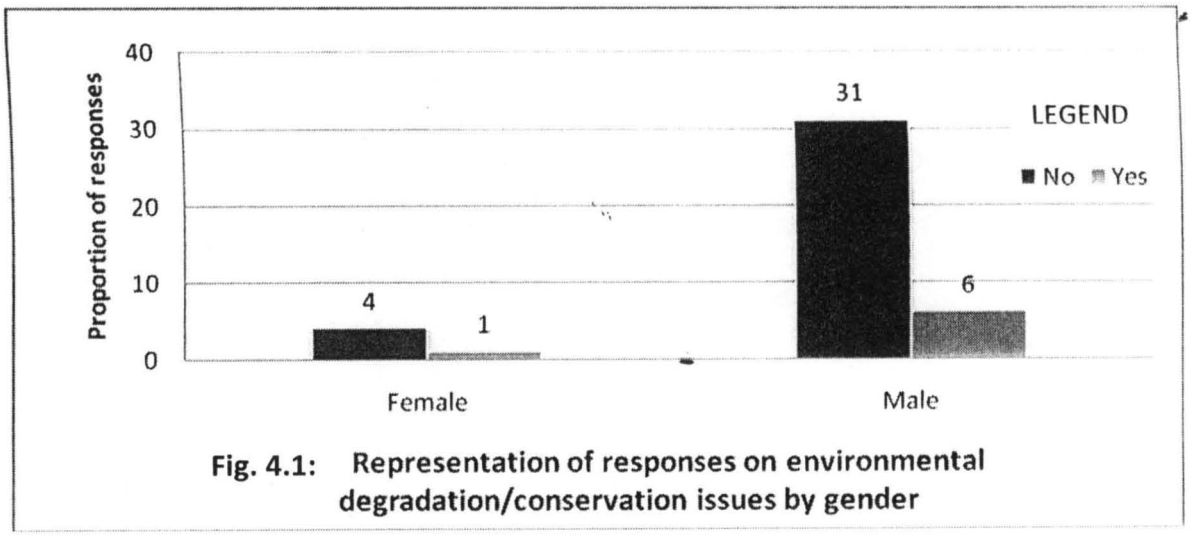

Fig. 4.1: Representation of responses on environmental degradation/conservation issues by gender

Data Source: Field Work, 2008

The representation of responses in Fig 4.1 does not however provide any conclusive evidence as to whether gender is significantly related to the patterns of responses analysed in the preceding paragraphs. Pearson correlation analysis was performed to serve this purpose, and the results were reported in Table 4.1

Table 4.1: Awareness about environmental degradation/conservation among development planners and policy executors analysed by gender of respondents.

Exp No	X	Y	R-values	R^2-values (%)	P-value	Inference
3.1	Gender of respondents	Environmental Awareness	-0.245	6.00%	0.118	Statistically insignificant result

Data Source:Field Work, 2008

The degree of association between the environmental awareness of the target sample and their gender was very low at 6%, as measured by the coefficient of determination (R^2). The relationship was however negative, indicating that males and females appeared to hold opposing views about environmental degradation/conservation. Gender was however not a significant factor in the level of environmental awareness among development planners and policy executors.

A total of five questions were asked and answered in connection with Environmental Impact Assessment. Of these three were direct questions, intended to establish how aware the sample population was with regards to this issue (EIA). The other two questions were multiple choice and open-ended questions, which sought to elicit further clarification from the respondents.

Three quarters (80%) of the sample were unaware of EIA reports, did not agree that EIAs should be carried out before development projects are started, and saw nothing wrong in clearing virgin land for developmental purposes. The level of

environmental awareness among development planners and policy executors, as measured by their awareness of environmental impact assessments can thus be said to be rather low. The proportion of the sample who felt that removal of soil cover and felling of trees for developmental purposes was wrong (17%) did so because such activities lead to land degradation, soil erosion, and eventually global warming. In addressing environmental concerns during development projects, 99% of the sample would closely monitor the projects.

The following column chart in fig 4.2 was produced from the research data relating to the issue of environmental impact assessments in order to reveal how the respondents performed with respect to their gender. The chart showed that half (50.0%) of the affirmative responses received by the study came from female respondents. This value has to be viewed against the backdrop of the very low proportion of the female gender (11.9% of the total study sample) included in the study sample. It was apparent that the majority (about 94.4%) of the responses that were negative came from male respondents.

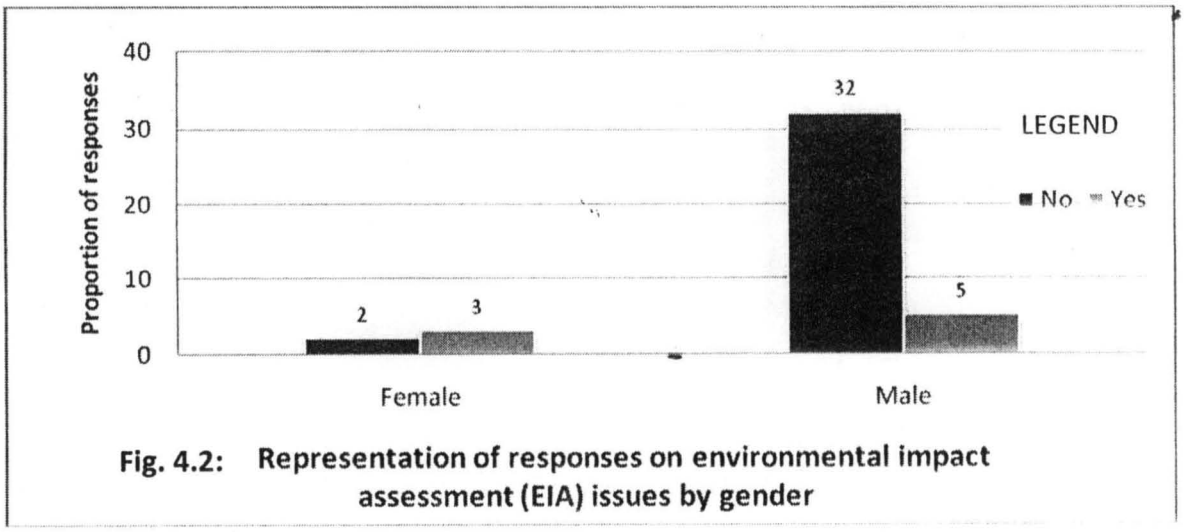

Fig. 4.2: Representation of responses on environmental impact assessment (EIA) issues by gender

Data Source: Field work, 2008

Fig 4.2 does not however provide any conclusive evidence as to whether gender is significantly related to the patterns of responses analysed in the preceding paragraphs. Pearson correlation analysis was performed to serve this purpose, and the results are reported in Table 4.2

Table 4.2: Awareness about environmental impact assessments among development planners and policy executors analysed by gender of respondents.

Exp No	X	Y	R-values	R^2-values (%)	P-value	Inference
3.2	Gender of respondents	Awareness of Environmental Impact Assessments	-0.405	16.40%	0.08	Statistically significant result

Data Source: Field work, 2008

The degree of association between the awareness of EIA reports and the gender of the sample was low at 16.4%, as measured by the coefficient of determination (R^2). The relationship was negative, indicating that males and females appeared to hold opposing views about environmental impact assessments. Gender was however a significant factor in the level of awareness about environmental impact assessments among development planners and policy executors. Female development planners and policy executors tended to be more aware of the uses and significance of EIAs than their male counterparts.

4.3.1 Discussions of the Results of Tests of Hypothesis H_{o1}

The foregoing analyses have been aimed at testing the validity or otherwise of Hypothesis H_{o1}, which stated that "Development planners in Minna town are unaware of environmental management issues". The hypothesis was tested using two main issues as a fulcrum. These were awareness of environmental degradation/conservation and environmental impact assessments (EIAs). The

proportion of negative and affirmative responses accruing to each issue is presented in Table 4.3

The levels of awareness were discovered to be very low (an average of 20%), which necessitated the acceptance of null Hypothesis H_{o1}

Table 4.3: The proportion of negative and affirmative responses for testing Hypothesis H_{o1}

Core issue	Negative responses (%)	Positive responses (%)	Inference	Action on Hypothesis
awareness of environmental degradation/conservation	79.36	20.63	**Awareness levels are very low.**	**Accept null hypothesis H_{o1}**
awareness of environmental impact assessments (EIAs)	80.16	19.84		
Combined average response	**79.76**	**20.24**		

Data Source: Field work, 2008

4.4 PROVISIONS IN GOVERNMENT POLICY DOCUMENTS.

Government Developmental Policies

Repositioning Ministry of works and Infrastructural Development is a policy statement of the Niger State Ministry of Works. The policy statement did not talk on environmental conservation and management in the course of carrying out construction projects (road and housing constructions). There is no section where the document talk on Environmental Impact Assessment (EIA) or other ways it

intends to achieve environmental conservation and management. These need to be addressed if any meaningful environmental conservation and management is to be achieved.

The National Economic Empowerment and Development Strategy, (NEEDS, 2004) documents states that "Nigeria is endowed with a rich and diverse natural environment but over the years it has reaped its riches with insufficient care for the livelihoods and well-being of future generations. National Economic Empowerment and Development Strategy is concerned with addressing the following.

a). **Waste production and disposal**: Development has proceeded with no regard for waste management or pollution control. Cities have inadequate systems for the safe disposal and treatment of waste. As rural emigration to urban areas grows, the problem worsens.

b). **Deforestation**: Some 92,000 hectares, a quarter of Nigerian land, were once covered by forest. Today, just half of the forests remain, and the potential for their future exploitation is extremely limited. Deforestation has been followed by erosion and desertification in some areas.

c). **Conservation of unique habitats**: Our environmental laws are inadequate and are not enforced. We do not know how much biodiversity has been lost as a result of oil and gas development.

NEEDS should be able to turn this bleak picture around by establishing a regulatory agency to enforce environmental laws, monitor industry compliance, conduct environmental audits and impact assessments and set standards.

The relevant sections of the Niger State policy statement on tourism (2007) which have bearing on environmental awareness as it relates to degradation and

conservation is section 4.1.6 (the environment) which state that "sound environment practices including environmental impact assessment (EIA) shall be carried out in respect of all tourism sites in the state. To further protect and preserve the sites against human environmental degradation, all land area (300 hectares) around tourism sites shall be referred to Tourism Development Areas (TDA) and shall be exclusive preserve for the development of tourism only. Development of infrastructures within the TDA shall be only with the approval of the ministry in charge of tourism and in accordance with the state tourism master plan."

This is an excellent policy statement if it will be implemented since the success of the tourism sector depends on the positive impacts it makes on human livelihoods. The tourism sector consists of hotels and catering sub-sector, travels and tour operations, transportation, (including aviation) entertainment, arts and culture etc. The sector would therefore contribute to livelihood skills assets and activities in a number of ways. It also facilitates the rehabilitation of degraded landscape and derelict buildings.

The government of Niger State by the Talba-led administration is currently giving Murtala Park (a tourist site in Minna town) a face lift to bring back its lost glory. By this development, tourism is known to depend significantly on environmental (nature-based) attractions (e.g. parks, game, forest reserves, and caves etc), and are sensitive to environmental degradation, which could impact negatively on tourism development. This is a major challenge. Furthermore, the opportunity cost of not developing the sector especially in light of its potential contributions to the livelihoods of the people, is quite high. As such government of Niger State should as a matter of fact give this sector all the necessary support it

requires to give its own contribution to natural resources conservation and management.

A total of seven questions were asked and answered in connection with this issue. Three were direct questions, requiring a 'yes' or 'no' answer, intended to establish how aware the sample population was with regards to the inclusion of environmental issues in tourism. The other four questions were open-ended questions, designed to elicit further clarification from the respondents.

Forty-eight percent of the sample (on the average) did not support that tourism sites (parks and gardens) should be given priority over residential uses, that environmental issues should be integrated in all development policies, and that positive attitudes towards the environment could be encouraged through relevant laws and regulations. For 57% of the respondents, parks and gardens were important because natural resources could be thus conserved. Forty-eight percent of the respondents were optimistic that reminders of the law and the consequences of its violation could change environmental attitudes

Environment and Educational Curricula

The National policy on education approved the National Conservation Education Strategy (NCES) and directed the infusion of Environmental Education (EC) elements into school curricula at all levels, starting with the citizenship education curriculum and the introduction of environmental education in Nigerian Universities. The major areas of emphasis for environmental education plan for the 21st century are to:-

- Reorient education towards sustainable development
- Increase public awareness

- Promote training

The National policy on education did not state clearly the teaching of environmental education in our primary and secondary schools, as such there is no environmental awareness at the grassroots level. If environmental education is introduced in our primary and secondary schools it will go a long way to assist schools to design and sustain environment-related activities including the establishment of environmental awareness clubs and associations thereby bringing active concern for the quality of the environment.

4.5 TESTING OF HYPOTHESIS NO. 2

Eleven questions were answered in connection with the above sub-heading. Only four of these were direct questions, intended to establish how aware the sample population was with regards to environmental development policies of the government. The other seven questions were thus multiple choice and open-ended questions, designed to elicit further clarification from the respondents.

Sixty-seven percent (67%) of the sample (on the average) did not think that government development policies have impacts on the environment, that development projects can be pursued without detrimental effects on natural ecosystems. Seventy-two percent (72%) of the respondents were unaware of NEEDS, SEEDS or LEEDS, and how these strategies could be employed to enable the populace make the best use of environmental resources. Some of the impacts that government development policies have on the environment were stated as: (i) enhancing good urban planning, (ii) mitigating risks and hazards in human environments, and (iii) controlling the exploitation of natural resources. Some

respondents, who were in the majority however felt that these impacts are not being felt because of low level of education and awareness, as well as corruption and indiscipline.

On the issue of how environmentally sound and sustainable development could be practiced, 26% of respondents opted for the use of experts, 45% opined that the provision of more relevant information was required, while 29% agreed with the provision of better institutional and financial support. The conduct of EIAs was seen by respondents to be the way out of environmental degradation due to construction projects. Although NEEDS aims, action plan and objectives would enable the Populace make the best use of natural resources, respondents also felt that they were difficult to implement.

To reveal how the respondents performed with respect to their gender, Fig 4.3 was produced from the research data relating to the issue of government developmental policies. The chart showed that about 62.5% of affirmative and 94.1% of negative responses received by the study came from male respondents. Although the proportion of the female gender included in the study sample was very low (11.9%), the chart is suggestive of a situation where responses did not differ based on gender.

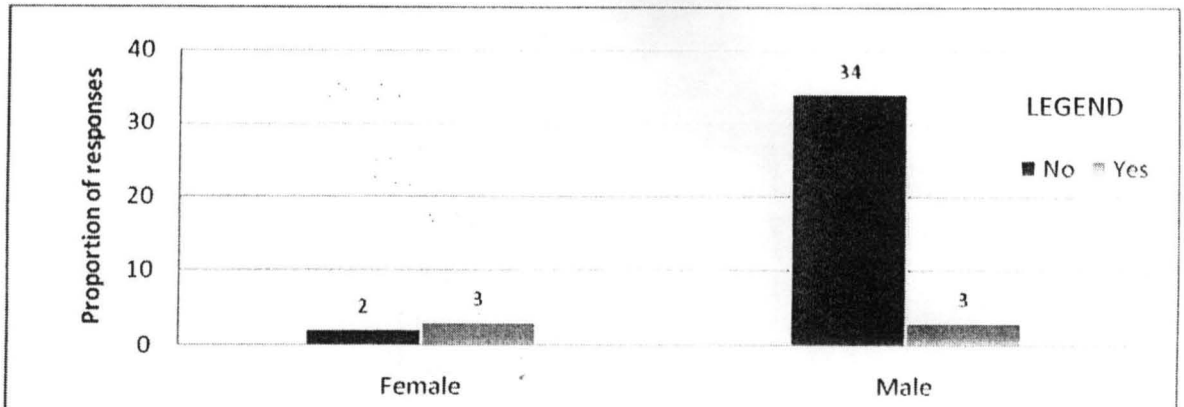

Fig. 4.3: Representation of responses on government developmental policy issues by gender

Data Source: Field work, 2008

Since the representation of responses in Fig 4.3 did not provide conclusive evidence as to whether gender is significantly related to the patterns of responses, Pearson correlation analysis was performed to serve this purpose, and the results were reported in Table 4.4

Table 4.4: Perception of inclusion of environmental concerns in development policies of government among development planners and policy executors analysed by gender of respondents.

Exp No	X	Y	R-values	R^2-values (%)	P-value	Inference
3.3	Gender of respondents	Inclusion of environmental concerns in government development policies	-0.151	2.28%	0.339	Statistically insignificant result

Data Source: Field work, 2008

The degree of association between the perception of inclusion of environmental concerns in development policies of government among development planners and policy executors and their gender was very low at 2.28%, as measured by the coefficient of determination (R^2). The relationship was negative, indicating that

males and females appeared to hold opposing views about environmental degradation/conservation. Gender was however not a significant factor in this case.

Three questions were asked and two were answered in connection with the above sub-heading. Only one was a direct question, requiring a 'yes' or 'no' answer, intended to establish how aware the sample population was with regards to the inclusion of environmental issues in schools' curricula. The other two questions were open-ended questions, designed to elicit further clarification from the respondents.

Thirty-three percent of the respondents did not support the inclusion of environmental issues in schools' curricula. The 67% who were in support felt that this could be achieved through: (i) review of the present curriculum of schools to include environmental education, and (ii) the creation of schools' environmental conservation clubs. No reasons were given by those respondents, who replied in the negative.

Fig 4.4 was produced from the research data relating to the issue of environment and educational curricula to reveal how the respondents performed with respect to their gender. The chart showed that about 81% and 100% of the affirmative and negative responses respectively came from male respondents. Even though the proportion of the female gender included in the study sample was very low (11.9%), all female respondents supported the inclusion of environmental issues in schools' curricula.

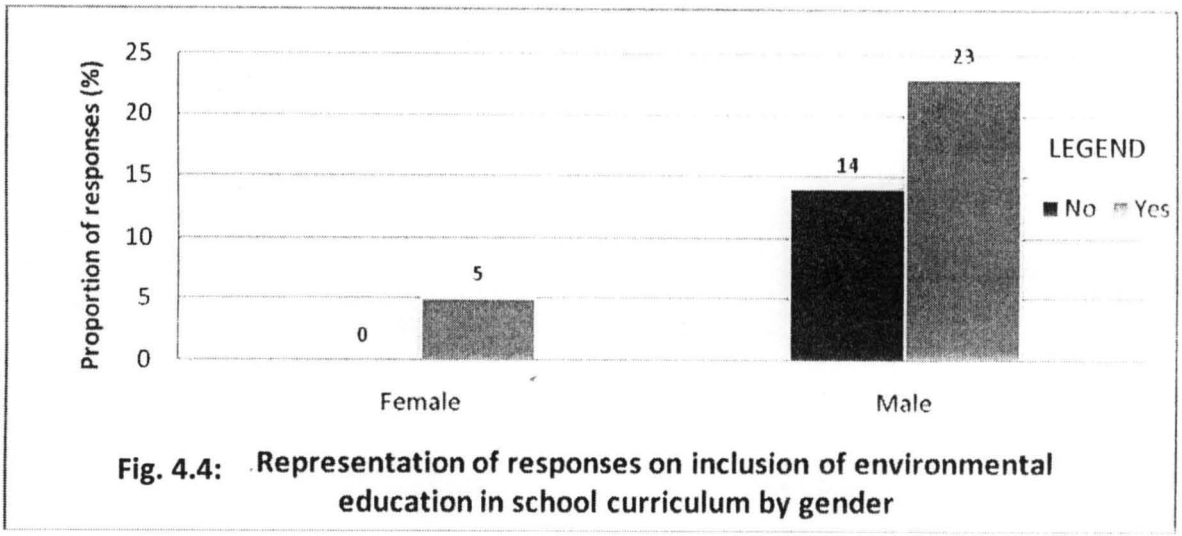

Fig. 4.4: Representation of responses on inclusion of environmental education in school curriculum by gender

Data Source: Field Work, 2008

Pearson correlation analysis was performed to provide conclusive evidence as to whether gender is significantly related to the patterns of responses, and the results are reported in Table 4.5

Table 4.5: Perception of inclusion of environmental education in schools' curricula among development planners and policy executors analysed by gender of respondents.

Exp No	X	Y	R-values	R^{2}-values (%)	P-value	Inference
3.4	Gender of respondents	Inclusion of environmental education in schools' curricula	-0.260	6.76%	0.096	Statistically insignificant result

Data Source: Field work, 2008

The degree of association between the perception of inclusion of environmental education in schools' curricula among development planners and policy executors and their gender was very low at 6.76%, as measured

by the coefficient of determination (R^2). The relationship was negative, indicating that males and females appeared to hold opposing views about environmental degradation/conservation. Gender was however not a significant factor in this case.

4.4.1 Discussions of the Results of Tests of Hypothesis H_{o2}

The foregoing analyses have been aimed at testing the validity or otherwise of Hypothesis H_{o2}, which stated that "Environmental concerns and management approaches do not form a part of policy documents detailing the Minna town development planning". The hypothesis was tested using two main issues as a fulcrum; these were government developmental policies and environmental education. The proportion of negative and affirmative responses accruing to each issue is presented in Table 4.6. The levels of perceptions of inclusion are greater than perceptions of non-inclusion, which necessitated the rejection of null Hypothesis H_{o2}.

Table 6: The proportion of negative and affirmative responses for testing Hypothesis H_{o2}

Core issue	Negative responses (%)	Positive responses (%)	Inference	Action on Hypothesis
Inclusion of environmental issues in government developmental policies	57.15	42.86	**Perceptions of inclusion are greater than perceptions of non-inclusion**	**Reject null hypothesis H_{o1}**
Inclusion of environmental issues in education curricula	33.33	66.67		
Combined average response	**45.24**	**57.77**		

Data Source: Field Work, 2008

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.0 SUMMARY OF FINDINGS

The data analyses have displayed in graphic form the responses to questions 1 – 39. The findings are summarized below:-

1) The use of awareness campaign to dissuade the general public from activities that are environmentally harmful appeared to be the preferred option for 62% of respondents.

2) Only 14% perceived the environmental quality of Minna town to be good, while 40% considered it to be poor in terms of sanitation.

3) Gender was not a significant factor in the level of environmental awareness among development planners.

4) The environmental awareness among development planners, as measured by their awareness of environmental impact assessments (EIA) can be said to be rather low, since over 80% of them were unaware of EIA report.

5) The proportion of the sample who felt that removal of soil cover and felling down trees for developmental purposes was wrong (17%) did so because such activities by their assessment lead to land degradation.

6) Sixty-seven percent (67%) of the sample did not think that environment development policies have impacts on the environment, that development projects can be pursued without detrimental effects to natural ecosystem.

7) Forty-five (45%) opined that the provision of more relevant information was most important, twenty-nine (29%) agreed with the provision of better institutional and financial support, while twenty-six (26%) of the respondents opted for the use of experts.

8) The inclusion of environmental issues in schools' curricula was supported by sixty-seven (67%) who felt that this could be achieved through:-

   i) Review of the present curriculum of schools to include environmental education, and

   ii) The creation of schools environmental conservation clubs.

9) Fifty-seven (57%) of respondents believe that tourism sites (parks and garden) should be given priority because natural resources could thus be conserved.

10) Effective city planning and urban environmental management is viewed as a necessity and an increasing challenge in Minna because of increase in population size, rural-urban migration and poor planning.

5.2 **RECOMMENDATIONS**

From the findings of this study, the following recommendations are pertinent

1. Governments should exert positive influence on the environment, through development policies and programmes, regulation of development activities of individuals and even the development planners through capacity building. The activities of the National Directorate of Employment (NDE) and the National Poverty Eradication Programme (NAPEP) in this should be strengthened.

2. Urgent and decisive action should be taken to reverse the gradual deterioration of the biophysical environment of Minna town.

3. Indiscriminate tree felling must be tackled by the creation of wider awareness of its negative impacts. Conversely, it might be desirable to resurrect periodic environmental sanitation exercises, in order to benefit from the existing wide awareness about its benefits.

4. Broad-spectrum policies that are based on inclusiveness of all stakeholders are advocated by this study as part of needed reforms in the environmental sector.

5. Development planners should ensure that all planning proposals within Minna town are strictly adhered to this could be achieved by comprehensive consultation with and participation by the planned.

6. Development planners should be able to advice the government on the effects of their policy on the environment for the fact that most of them have negative consequences on the natural environment, for example massive felling down of trees to give way for road and housing construction should be done in a way that when a tree is removed two are planted.

5.1 **CONCLUSION**

Environmental awareness and attitudes among development planners of Minna town considers the awareness and attitudes of development planners about environmental conservation and management, it also examines the extent to which mainstreaming environment into development policies have been achieved in Minna town.

The results from the analysis have shown that lack of concern for the environment led to the degradation of Minna town.

First and fundamentally, it was demonstrated that Development planners in Minna town are unaware of environmental management issues (Hypothesis H_{o1}).

The hypothesis was tested using two main issues awareness of environmental degradation/conservation and environmental impact assessments (E1A). The level of awareness was discovered to be very low among development planners which necessitated the acceptance of the null hypothesis Ho_1. The second fundamental issue aimed at testing the validity or otherwise of Hypothesis H_{o2}, environmental concerns and management approaches do not form a part of policy documents detailing the Minna town development planning the hypothesis was tested using two main issues government developmental policies, environmental education. The level of perceptions of inclusion is greater than perceptions of non inclusion, which necessitated the rejection of null hypothesis H_{o2}. Correlation between the gender of the respondents and their responses was analyzed, using Pearson correlation analysis. Gender was not a significant factor in the level of environmental awareness among development planners and policy executors. Also the degree of association between the awareness of environmental impact assessment reports and gender of the sample was low at 16.4% as measured by the coefficient of determination (R^2). The relationship was negative, indicating that males and females appeared to hold opposing views about environmental impact assessment. Female development planners and policy executors tended to be more aware of the uses and significance of environmental impact assessment than their male counterparts.

The mounting of awareness campaigns to dissuade the general public from activities that are environmentally harmful remain the preferred option for 62% of respondents. In addition, government should retain control over the implementation and monitoring of environmental activities.

Some of the impacts that government development policies have on the environment were stated as: (i). enhancing good urban planning, (ii). Mitigating risks and hazards in human environments, and (iii). Controlling the exploitation of natural resources. Some respondents, who were in the majority 83% however felt that these impacts are not being felt because of low level of education and awareness, as well as corruption and indiscipline.

Conservation and management of our natural environment would require people centred planning, strong development control measure and integrated Minna

town planning. Governments have enormous opportunity to positively influence the environment, through development policies and programmes, regulation of development activities of individuals, and capacity building training.

5.3 **AREAS FOR FURTHER STUDIES**

This study focused on environmental awareness among development planners of Minna town. It was thus suggested that the same study be replicated using the following variable and samples.

1). Environmental Awareness among primary and secondary school pupils.

2). Environmental perception in a rapidly growing town (A case study of Minna town).

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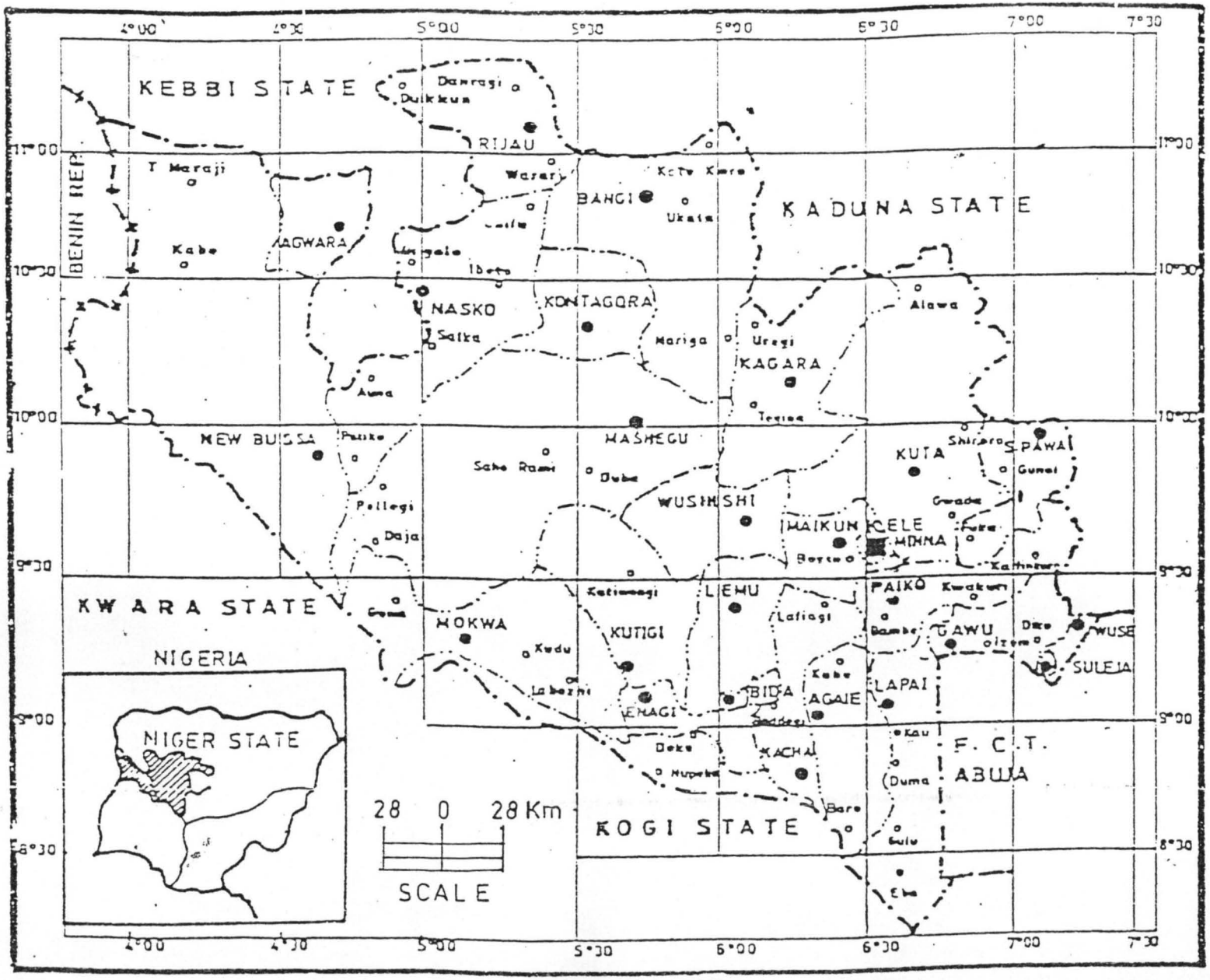
APPENDIX 1

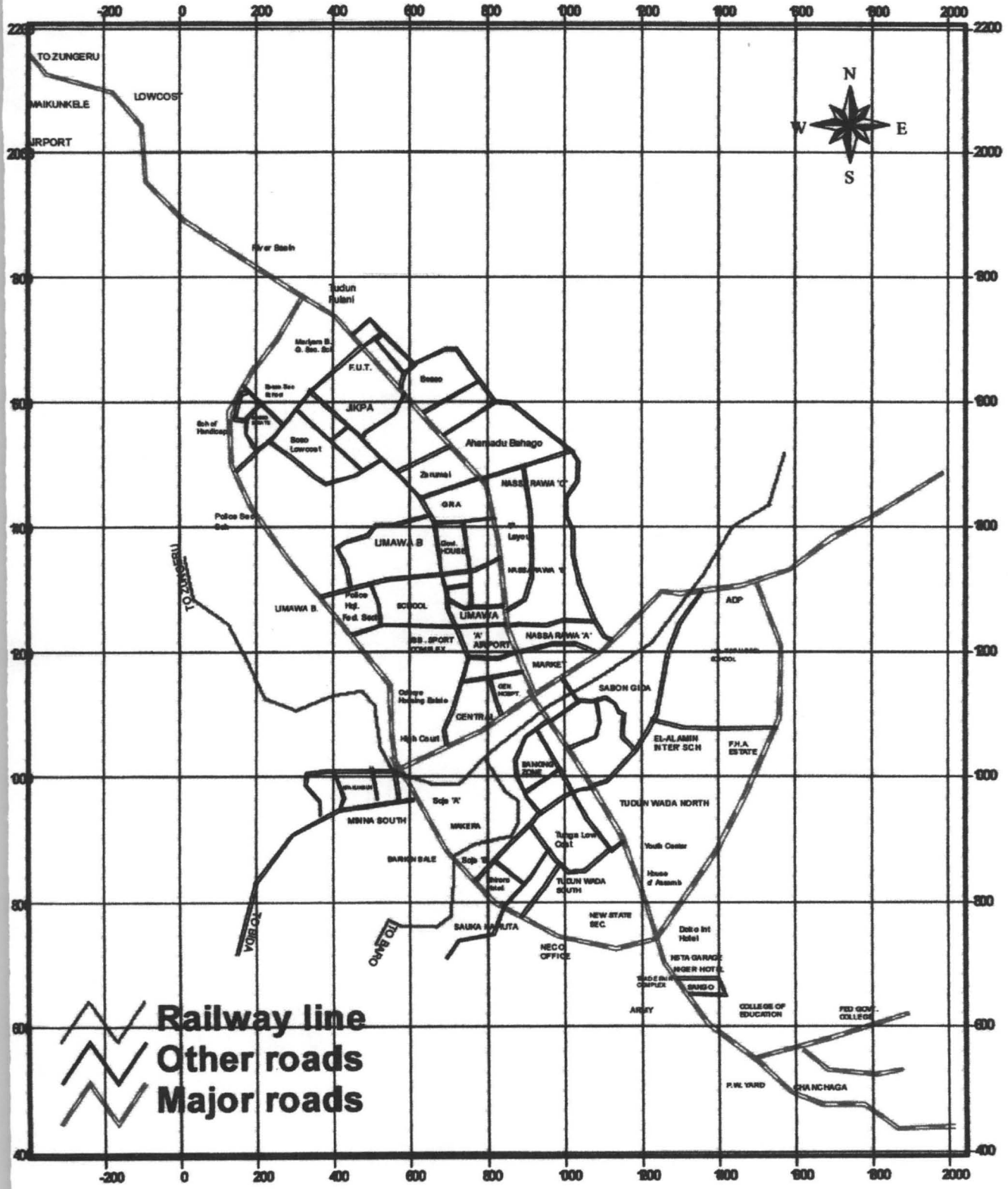


LEGEND

National Boundary..... State Boundaries . . . Local Govt. Boundaries.....

State Capital.. ■ Minna Local Government Headquarter.... ● MASHEGU Major Town. ○

Appendix 2

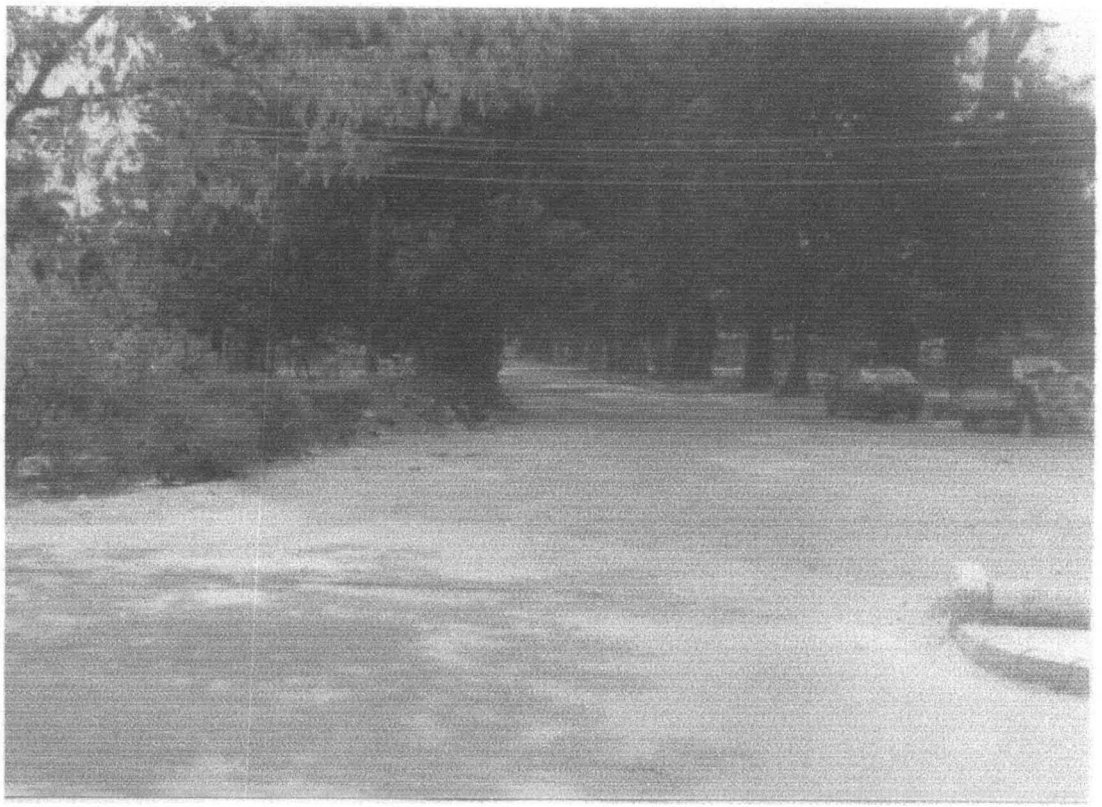


STUDY AREA

APPENDIX 3

Resp	Ministry	Rank	Gende	Q1	Q4	Q6	Q7	Q9	Q12	Q15	Q16	Q17	Q20	Q21	Q24	Q25	Q26	Q28	Q29	Q32	Q35	Q36	Q39
1	Min of Lands		F	Y	N	B	C	N	N	A	B	N	N	N	Y	Y	N	B	Y	Y	Y	Y	B
2	Chanchaga LGA		F	N	Y	A	C	N	N	B	C	Y	Y	N	Y	Y	Y	A	Y	N	Y	Y	C
3	Minna-West LGA		F	N	Y	B	C	Y	N	B	C	N	N	N	N	N	Y	B	Y	N	N	Y	C
4	NSUDB		F	Y	N	B	C	N	Y	A	A	N	Y	Y	N	Y	N	B	Y	Y	Y	Y	B
5	Min of Works & Infrastructure		F	N	N	A	C	Y	N	B	C	N	Y	Y	Y	Y	N	A	Y	N	Y	Y	C
6	Min of Lands		M	Y	Y	A	A	Y	Y	A	A	Y	Y	Y	Y	Y	Y	B	Y	Y	Y	Y	A
7	Chanchaga LGA		M	Y	Y	A	A	Y	Y	A	A	Y	Y	Y	Y	Y	Y	B	Y	Y	Y	Y	A
8	Minna-West LGA		M	N	Y	A	A	Y	Y	A	A	Y	Y	Y	Y	Y	Y	B	Y	Y	Y	Y	A
9	NSUDB		M	N	Y	A	A	Y	Y	A	A	Y	N	N	Y	Y	Y	B	Y	Y	Y	Y	A
10	Min of Works & Infrastructure		M	N	Y	A	A	Y	Y	A	A	Y	N	N	Y	Y	Y	B	Y	Y	Y	Y	A
11	Min of Lands		M	N	Y	A	A	Y	Y	A	A	Y	N	N	Y	N	N	B	Y	Y	Y	Y	A
12	Chanchaga LGA		M	N	Y	A	A	N	Y	A	A	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
13	Minna-West LGA		M	N	Y	A	A	N	Y	A	A	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
14	NSUDB		M	N	Y	A	B	N	Y	A	A	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
15	Min of Works &		M	N	Y	A	C	N	Y	A	A	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
16	Min of Lands		M	N	Y	A	C	N	Y	A	B	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
17	Chanchaga LGA		M	N	Y	A	C	N	Y	A	B	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
18	Minna-West LGA		M	N	N	A	C	N	Y	A	B	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
19	NSUDB		M	N	N	A	C	N	Y	A	B	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
20	Min of Works & Infrastructure		M	N	N	A	D	N	Y	A	B	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
21	Min of Lands		M	N	N	A	D	N	Y	A	B	Y	N	N	N	N	N	B	Y	Y	Y	Y	A
22	Chanchaga LGA		M	N	N	A	D	N	Y	A	B	Y	N	N	N	N	N	B	Y	N	Y	Y	A
23	Minna-West LGA		M	N	N	A	D	N	Y	A	B	Y	N	N	N	N	N	B	Y	N	Y	N	B
24	NSUDB		M	N	N	A	D	N	Y	A	B	Y	N	N	N	N	N	B	Y	N	Y	N	B
25	Min of Works &		M	N	N	B	D	N	N	A	B	Y	N	N	N	N	N	B	Y	N	Y	N	B
26	Min of Lands		M	N	N	B	D	N	N	A	B	Y	N	N	N	N	N	B	Y	N	Y	N	B
27	Chanchaga LGA		M	N	N	B	D	N	N	A	B	Y	N	N	N	N	N	B	Y	N	Y	N	B
28	Minna-West LGA		M	N	N	B	D	N	N	A	B	Y	N	N	N	N	N	B	Y	N	N	N	B
29	NSUDB		M	N	N	B	D	N	N	A	B	Y	N	N	N	N	N	B	N	N	N	N	B
30	Min of Works & Infrastructure		M	N	N	B	D	N	N	B	B	N	N	N	N	N	N	B	N	N	N	N	B
31	Min of Lands		M	N	N	B	D	N	N	B	B	N	N	N	N	N	N	B	N	N	N	N	B
32	Chanchaga LGA		M	N	N	B	D	N	N	B	B	N	N	N	N	N	N	B	N	N	N	N	B
33	Minna-West LGA		M	N	N	C	D	N	N	B	B	N	N	N	N	N	N	B	N	N	N	N	B
34	NSUDB		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	B
35	Min of Works & Infrastructure		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	B
36	Min of Lands		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	B
37	Chanchaga LGA		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	B
38	Minna-West LGA		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	B
39	NSUDB		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	B
40	Min of Works & Infrastructure		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	C
41	Min of Lands		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	C
42	Chanchaga LGA		M	N	N	C	D	N	N	B	C	N	N	N	N	N	N	B	N	N	N	N	C

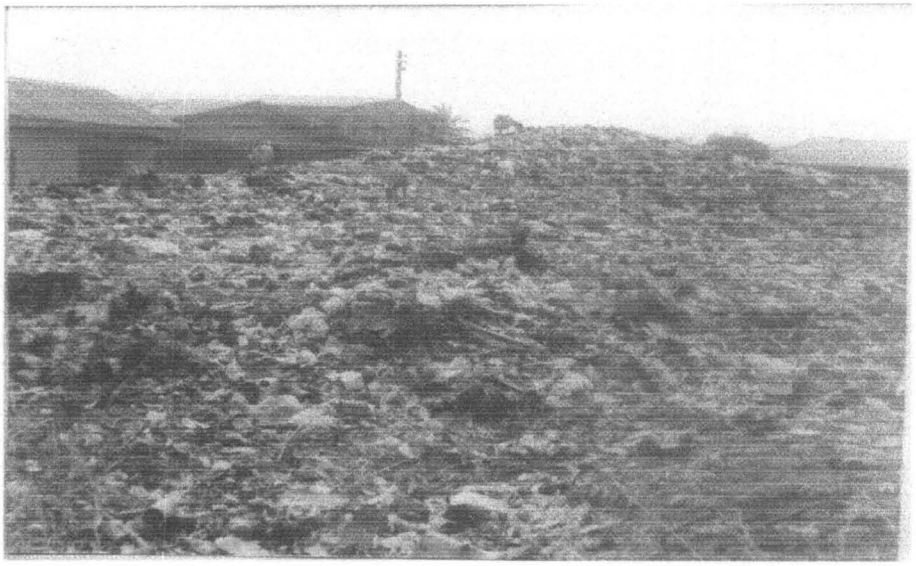
Appendix 4



GOVT. HOUSE ROAD BEFORE FELLING OF TREES. DATE 10/03/08

ROAD CONSTRUCTION TAKING PLACE AFTER FELLING OF TREES. 26/04/08

Appendix 5



REFUSE DUMP SITE AT TUNGA-BAY CLINIC ROAD, MINNA. DATED 03/02/08

UNPLANNED DRAINAGE LAYOUT AT LIMAWA AREA, MINNA. DATED 04/02/08

TOILET OUTLET LINKED TO DRAINAGE LAYOUT AT ANGUWAN DAJI AREA DATED 04/02/08

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

DEPARTMENT OF GEOGRAPHY

M.Tech : Thesis Questionnaire on Environmental Awareness and Attitude among Development Planners in Minna Town

INTRODUCTION

Thank you for taking your time to complete this questionnaire. The information provided will be used strictly for academic purposes only. Respondent – confidentiality will also be maintained. Thank you.

Aishatu Mohammed
Researcher

SECTION A: PERSONAL DATA

Name (Optional): _____

Age:_____

Ministry:_____

Gender: Male or Female:_____

Rank:_____

SECTION B: ASSESSMENT OF LEVEL OF ENVIRONMENTAL AWARENESS AMONG DEVELOPMENT PLANNERS AND POLICY EXECUTORS IN MINNA TOWN.

1. Is it possible to provide for the needs of the present and also that of future generation? (a). Yes (b). No

2. If your answer is yes, how can this be carried out?

   _____

   _____

3. If No, why do you think it is not possible?

   _____

   _____

4. Are there any degradation factors in the environment of Minna town.

(a). Yes (b). No

5. If yes List the degradation factors.

_____

_____

6. In what ways is nature conservation important to development projects.

(a). aesthetic beauty of the environment

(b). prevent environmental degradation

(c). Both the option given

7. How many courses/conferences/seminars on environmental protection have you attended in the last five years.

(a). 1 (b). 2 (c). 3 or more (d). None

8. State the dates and themes of the conferences attended?

_____

_____

9. Is there any negative impact of township tree felling on the environment?

(a). Yes (b). No

10. If yes, what are the negative impact

_____

_____

11. If No, why?

_____

_____

12. Does government development policy have impact on the environment?

(a). Yes (b). No

13 If Yes, in what ways

_____

_____

14. If No, why do you think it is so?

_____

_____

15. How best can government stop the general public from activities that are harmful to the environment?

(a). Awareness campaign (b). By sanctioning defaulters

(c). Any other way (please specify)

16. What is required most for integrating environmentally sound and sustainable development principles within a proposed development plan.

(a). Experts support (b). Information

(c). Institutional and financial support

17. Can we embark on physical development projects without necessarily destroying the ecosystem natural resources? (a). Yes (b). No

18. If Yes, how can this be done?

_____

_____

19, If No, why do you think it is not possible?

_____

_____

20. Are you aware of the National, State and Local Economic Empowerment and Development Strategy (Needs, Seeds, & Leads) documents?

(a). Yes (b). No

21. Can National Economic Empowerment and Development Strategy (NEEDs) create an environment that can enable the populace make the best use of natural resources? (a). Yes (b). No

22. If yes how can this be carried out

_____

_____

23. If No, why do you think it is not possible?

_____

_____

SECTION C:
ATTITUDE OF DEVELOPMENT PLANNERS AND EXECUTORS OF DEVELOPMENT PROJECTS IN MINNA

24. Are you aware of Environmental Impact Assessment (EIA) report of development projects. (a). Yes (b). No

25. Do you think environmental impact assessment should be carried out before any development project is embark upon.
(a). No (b). Yes

26. Is there anything wrong in land clearing during physical development projects? (a). Yes (b). No

27. If yes, what are they

_____

_____

28. How would you have approached environmental concerns during development projects?
(a). By providing environmental impact assessment (EIA)
(b). By closely monitoring the development projects
(c). Other ways (Specify)

29. Do you support including environmental education in our schools curriculum?
(a). Yes (b). No

30, If Yes, how can it be done?

_____

_____

31. If No, why?

_____

_____

32. Should tourism sites (Parks and Gardens) be given more priority to residential plots. (a). Yes (b). No

33 If Yes, how can it be done?

_____

_____

34. If No, why?

_____

_____

35. Do you subscribe to integrating environmental concerns in all development policies? (a). Yes (b). No

36. Can the enactment and enforcement of relevant environmental laws and regulations bring about positive attitudes to environment?
(a). Yes (b). No

37 If Yes, how?

_____

_____

38. If No, why?

_____

_____

39. How will you rate the quality of environment of Minna town in terms of sanitation?
(a). Poor (b). Average (c). Good