

Kogi State University, Anyigba

From the Selected Works of Olarewaju Oluseyi Ifatimehin

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Contemporary Issues in Infrastructural Development and Management in Nigeria

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CONTEMPORARY ISSUES IN
INFRASTRUCTURAL DEVELOPMENT
AND MANAGEMENT IN NIGERIA

*DEPARTMENT OF GEOGRAPHY AND PLANNING, KOGI STATE
UNIVERSITY, ANYIGBA, NIGERIA*

Contemporary Issues in Infrastructural Development and Management in Nigeria

A Book of Abstracts

**Edited by
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Preface

The importance and role of effective and functioning infrastructure in the delivery of services and in enhancing quality of life can not be overemphasized. Developing as well as developed nations have therefore a dire need to have a comprehensive knowledge about the geography and their infrastructural resource base.

In most cases, facts and figures about infrastructure are either not available or grossly inadequate making management of infrastructure a great challenge especially in developing countries like Nigeria. In Nigeria, the infrastructural base of development is weak and thus the various levels of government have been making efforts at overcoming the challenges posed by weak infrastructural base. Most of their efforts are not coordinated and lack integration because of the poor existing knowledge about infrastructural development and management.

If Nigerian government is to achieve anything in this sector in order to also meet the Millennium Development Goals of eliminating poverty, then serious and concerted efforts should be made to improve on our present knowledge of infrastructural development and management. The Association of Nigerian Geographers has rightly choosing a theme which reflects the dire need of the nation.

Infrastructural Development and Management has been examined by contributors from different perspectives. This book of abstracts contains highlights of the research findings on various issues relating to infrastructural development and management. These abstracts have been grouped according to the Sub-themes, thus making it easy to organize the information contained here in.

The good work is a product of the collective effort of the Local organizing Committee, and their efforts is greatly acknowledged. On behalf of the Local organizing Committee I also appreciate supports (financial and materials) received from individuals and corporate organization.

Professor Adesola Ogidiolu

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SUB – THEME 1

**Conceptual and methodological
Issues in Infrastructural
Development and Management**

RETHINKING THE POWER SECTOR REFORMS IN NIGERIA: PROSPECTS AND CHALLENGES

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Abstract

This paper examines the state of the Nigeria's power sector and the impacts of the power sector reform on the transformation of electricity and its availability to the citizenry. We argued in the paper that the Nigerian power sector which is suppose to be the engine room for the over all socio-political and most importantly the economic development of a nation is in a very deplorable state as a result of numerous factors among which are; poor investment in the sector, low maintenance of dilapidated facilities, poor commercial performance, high debt and low service delivery culture. Others includes vandalisation of PHCN installations, inadequate gas supply, illegal connections and unbridled monumental corruption, low water level at the hydro power stations, policy inconsistent and the long monopoly enjoyed by the NEPA and the lack of political will to do what was right by the government. As result, many big companies, due to persistent quarterly loses resulting from increased expenditure on powering their plants and maintaining generators, are either closing shops or relocating to neighbouring countries such as Ghana where stable electricity is guaranteed with attendant losses and capital flight. Presently, the federal government has embarked on power sector reforms with the intention of improving the above unpalatable scenario and in turn reduces the scope of monopoly control of the nations' power industry. The paper therefore looks at the overall power sector reforms as well as evaluates the opportunities and challenges.

Keywords: power sector, reform, monopoly, prospects, challenges, PHCN, NEPA,

INFRASTRUCTURE LOCATION: THE CHANGING MODELLING FRAMEWORKS

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Abstract

The environment of infrastructure location decision making is in a flux: new thinking, ideologies, social and environmental awareness coupled with political expediency and economic imperatives are constantly changing the weights of factors considered in location decision making. As expected, existing models built on the pillars of profit maximization and assumption of homo economicus – though still important – no longer capture the reality of the present situation in infrastructure location decisions. This paper traces the trends in infrastructure (facility) location decision modelling and identifies productive areas of research that incorporate the oft-neglected factors of environment, politics and socio-cultural values into the location decision models.

**MILLENNIUM DEVELOPMENT GOALS AS AN EFFECTIVE TOOL
FOR IMPROVING THE QUALITY OF LIFE: A CASE STUDY OF
BENIN METROPOLIS**

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AND
ESTHER ERHAHON**

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BENIN CITY**

Abstract

The growing challenges in developing countries have continued to attract the attention of development experts. The main challenges identified include inadequate supply of social amenities, low life expectancy at birth, high unemployment rate, and high illiteracy rate, among others. The Millennium Development Goals (MDGs) is the most recent global initiative for development. With less than a decade to the target year (2015), many nations are beginning to review the process and progress made so far in achieving these goals. While most countries in Asia, Eastern Europe, Latin America and the Caribbean are now on course in fulfilling many of the imperatives of the MDGs, only a few African countries are likely to meet most of the goals. Nigeria continues to lag behind other developing countries in virtually all Human Development Indices (HDI). This study investigates the current achievements of the MDGs in Benin Metropolis using basic socio-economic indicators such as income, education, occupation, health among others. Questionnaires were administered using stratified random sampling technique and the data generated were fed into SPSS. Two hypotheses were stated and tested and the results show that quality of life is a function of income, level of education and occupation. This study is therefore of the view that achieving the Millennium Development Goals would improve the quality of life of Nigerians.

URBAN DECAY IN THE CONTEMPORARY 21ST CENTURY WORLD: WHITHER NIGERIA?

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Abstract

The paper examined the phenomenon of urban decay in its classical state in the Western World, and tried to analyze Nigeria's urban ills vis-à-vis the former. One fact which emerged from the literature was that urban decay presupposes "due process" in evolution and freshness in urban character. Again, the process is a composite of physical, social and economic variables acting to confer decay. One finding which emerged from the review was that Nigeria's urban ills (dilapidation, squalor and slumization) approximate with, but do not equate to, urban decay. In view of the seriousness of the problem, however, both prophylactic and ameliorative measures/initiatives were canvassed, with the proviso that the former (dealing with advance multi-faceted planning) be preferred.

Prioritizing Factors of Failures in controlling Physical Development in Nigeria

Alabi M.O.and Dr. E.O. Oriola

ABSTRACT

One of the problems development control in Nigerian cities has been found to be the prioritization of problem solving. Development control in Nigeria, a developing country and the entire sub-Saharan African countries is bereft with several problems in decision making .Which calls for a priority selection solution in decision making due to scarce resources. This research seeks to determine a way of systematically and empirically selecting the factors and problems militating against effective development control and causes of its failure in Nigerian cities, finding the way to select the problems that are of most priority. The combination of the Ahp and the Delphi technique has been used to determine the significant factors and compared to each other to find the problem of most priority to be solved. In carrying out a development control process, it was found that expert opinions all have consistency ratio value of less than 0.1, which shows a significant value, therefore priority selection of problems was based on nearness to 0.1, where only 3 factors of the expert opinions fall within the category of selection, therefore factors such as, insufficient financial capacity, absence of public enlightenment on the importance of development control, unsuitable organisational structure for implementing the urban plans were selected as of most priority to solve a development control problem.

Telecommunication and Surface Travel: State of the Art Practice, an Emperical Substitution in national Development.

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Abstract

Telecommunication will affect every facet of our lives and will become a key driver for economic growth and innovation in the next decades. Moreover, with the introduction of new services such as mobile internet, on-line road traffic information and stock exchange rates but also advanced technological applications such as remote medical services, mobile and personal communications system will play a major role in the due to the information technology rapidly changing society. In contrast with the extreme importance of mobile communications for economic growth, optimization of network Performance is generally not taken into account in the development of new standards. As future systems involve multibillion euro investment and yearly expenses, operations research methods for mobile networks potentially have a huge economical and technological impact.

SUB – THEME 2

**State of Infrastructure and the
impact on Quality of Life**

AN ASSESSMENT OF THE SPATIAL DISTRIBUTION OF GOVERNMENT SECONDARY SCHOOLS IN THE ZARIA AREA OF KADUNA STATE

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Abstract

The development of educational infrastructure is a pre-requisite to National development in all its ramifications. Accordingly, this paper assesses the spatial distribution of Government Owned Secondary Schools (GOSS) in the Zaria Area. It reveals that the spatial distribution of Government Owned Secondary Schools in Zaria area is very uneven. The paper argues that uneven distribution of Government Owned Secondary education facilities as well as their inadequacy and inefficiency encourage the proliferation of Private Owned Secondary Schools (POSS) and has serious consequences on the educational services provided and therefore, the quality of education and its standard. It recommends that future locations should consider areas poorly served with the view of increasing their services, and numbers.

INTRA-URBAN ROAD TRAFFIC ACCIDENT RATE AMONG COMMERCIAL MOTORCYCLISTS IN MAKURDI URBAN: ITS IMPACTS ON THE QUALITY OF LIFE OF THE PEOPLE

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Abstract

Commercial motorcycle operation in recent times has come to bridge the gap in most urban mobility across the country. However, this bridge is not without the dangers pose to operators, passengers and to other road users. In view of that some relevant literatures were reviewed to ascertain the current issues and research on accidents involving commercial motorcyclists in Nigeria. The study employed a multi-stage sampling technique where questionnaires and interviews were administered and granted to motorcyclists, commuters, motorcyclist's officials and FRSC on motorcyclists' safety measures at 14 designated terminals across Makurdi urban. Data were collected and analyzed. The findings of the study shows the category of the population mostly involved in commercial motorcycle operation are the youths within the age group of 21-30 years constituting 75% of the state workforce that is unemployed. The study further observed that majority of the motorcyclists operate under the influence of drugs and other substances which lure them into excessive speed and competition. Over speeding has been adjudged major cause of accidents among motorcyclists in Makurdi town. For this and other reasons 51.8% of the respondents preferred to use buses to motorcycle which has a perceived higher risk of accidents. The study concluded that there is need for extensive awareness campaigns on the use of safety helmet, psychoactive substances and safety education by Law enforcement agencies, National Agencies for Food Drug Administration and Control (NAFDAC), National Drug Law Enforcement Agency (NDLEA) and Federal Road Safety Commission (FRSC). Finally the study recommends a holistic approach to development of intra-urban transport system in Nigeria is inevitable.

REGIONAL INEQUALITIES IN HEALTH CARE DEVELOPMENT IN PLATEAU STATE: NEED FOR A RATIONAL PLANNING

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Abstract

Infrastructure development has generated diverse interests among scholars especially in terms of its distribution among regions in a country. Indeed, development is not evenly spread over the space economy. In Nigeria as in many developing economies, there is concentration of development efforts in urban centres and has led to inequitable distribution of the limited resources. The regional imbalance is most glaring between few urban centres and extensive rural areas. The latter where the majority of the people belong is generally deprived and neglected. Regretfully, all efforts being made by successive governments towards addressing spatial balance have not yielded meaningful results. The objective of this paper is to examine regional distribution of health care facilities with a view to making a comparative analysis of health care development in Benue State. Data were collected on health care variables and population. Both primary and secondary sources of data were employed with the administration of one thousand and twenty questionnaires in the study area. The study employed standardized score (Z-score) analytical technique. The analysis revealed a core-periphery spatial pattern of health care development. Indeed, Jos-North dominates the consumption of health care facilities with a Z-score of 6.37, followed by Jos-Central (4.86), Jos-East (4.36) and Mikang (2.89) and Mangu (2.23) in that order of performance. In the same vein, areas such as Riyom (-4.81), Mikang (-4.56), Bassa (-2.57), Quan' an Pan (-2.35) and Kanke (-2.34) were found to be disadvantaged. On the basis of the findings, one recommends among other things, that if government is serious at achieving health for all with vision 2020, there should be discriminatory investments in health care delivery system in favour of deprived and lagging areas. Moreover, community self-help projects such as building of clinics, dispensaries, cottage hospitals and health centres should be encouraged by the government by giving technical and financial assistance to the communities that embark upon such laudable projects. By so doing, the gap between the privileged and under-privileged areas will be reduced to a bearable level.

AN EVALUATION OF THE SOURCES OF RURAL WATER SUPPLY IN KURA KANO STATE

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ABSTRACT

No society can compromise the significance of water. In this paper attempt has been made to identify the main sources of water among the rural commutes in kura local Government against the background of problems of water supply in the rural areas in Kano. It was found out that little has been done to improve the sources of water supply and its qualities. Suggestions were provide that can improve the quality and sources of Rural water supply.

Infrastructural Development and Impact on Quality of Life- involving beneficiary communities in the provision of functional and sustainable potable water facilities in the Niger Delta, Nigeria.

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ABSTRACT

Infrastructures are critical to the development process; the quantity and quality of infrastructures available to the people can itself be a measure of development. More concretely however, the level of infrastructure and amenities available and functional in any area or community has direct implications on the quality of life and also influences other socio-cultural and economic variables in the area. The provision of and improvements to infrastructure is therefore, fundamental to achieving the vision for the development of any community, state, region or national space. Generally, the available social development indicators in the Niger Delta region point to inadequate, unavailable and poor quality infrastructure and social services, from water to telecommunications. Water infrastructure stands out of all infrastructures, physical and social, as critical to the attainment of good quality life. Potable water supply is both a function of adequate and accessible functional water infrastructure. Available data reveal that water in the majority of Niger Delta communities comes from unsafe supply facilities, including rivers, lakes or ponds, unprotected wells and boreholes. A safe and reliable water supply is currently available to only a small fraction of the population, approximately 8% of the population actually enjoys water supply in urban and rural centres, while only 3% of the population are actually served by the supply in rural villages. Poor maintenance practices and management systems are two main reasons for the failure of water infrastructures. But many of the infrastructures have performed badly because of the failure of project proposers to consult and have the supposed beneficiaries participate in choice, implementation and management of the infrastructures. Consequently, the "felt needs" of these communities are never properly assessed before the projects are put in place. More participatory planning approaches in the conception, planning, implementation and management of community infrastructural development projects is here canvassed.

HALF FULL OR HALF EMPTY: AN ANALYSIS OF WATER INFRASTRUCTURE ACCESSIBILITY IN THE EASTERN KOGI STATE, NIGERIA

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Abstract

Infrastructure availability defines settlement serviceability and liveability. Water infrastructure stands out of all infrastructures (Physical and Social) as critical to the attainment of the MDGs. The aim of this study is to x-ray household access to water infrastructure in the eastern part of Kogi State. Data was derived from secondary and primary sources. Primary data involved household survey using structured questionnaire. Secondary data collected included revenue of government as well as expenditure on infrastructure. Analysis of accessibility level was carried out within the frame of WHO's accessibility indicators. Findings show that, majority of households relies on traditional and unprotected water sources. Within the WHO's standard households water access are mainly within basic – no access level. Cost of inaccessibility for average households include mean distance travel of 513meters daily or 65minutes and N145;this is in addition to sectoral neglect in infrastructure investment in general and water in particular. Based on the findings, recommendations were made, including the need to review the nation's water supply policy and the establishment of a Water department at sub-national level.

Key Word: Accessibility, Household, Infrastructure, Water.

THE STATE OF INFRASTRUCTRE AND FUNDING IN KOGI STATE, NIGERIA

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Abstract

The government of Kogi state has allocated large proportion of its budget to infrastructural renewal, more than the development of new ones, with little attempt of cost recovery. this weakness in infrastructural provision have been found to be a reflection of lack of involvement of the private sector in infrastructure provision .The findings shows that 30% of the proposed infrastructure projects were not executed due to lack of fund, hence private-public partnership have been suggested to help compliment the efforts of the state government.

STATE OF INFRASTRUCTURE AND ITS IMPACT ON THE QUALITY OF LIFE IN GWAGWALADA AREA COUNCIL OF ABUJA

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Abstract

This study focuses on the impact of the state of infrastructure on the quality of life of people in Gwagwalada area council of Federal Capital Territory. The population of the study comprises of all the teaching staff in all the 5 Senior Secondary Schools in the council which are 354(219 male and 135 female teachers) Education Resource Center (2008). Random sampling technique was used to select 100male and 100 female teachers totaling 200 teachers. They were used to fill the designed questionnaire items. The result of the study reveals that poor state of education, health, water, transport, electricity and housing infrastructural facilities have negative impact on the quality of life of people. Also, adequate provision and maintenance of infrastructure will make life comfortable, pleasurable and functional. It was also discovered that corruption, mismanagement, poor attitudes to public facilities, bad leadership and poor followership are among the causes of worrisome state of infrastructural facilities in our society. It was recommended among others that government at all levels should overhaul education, health, water, transport, electricity and housing infrastructural facilities as means of improving the quality of life of people.

Analysis of the state of Road Infrastructure Development in Akwa Ibom State, Nigeria

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Abstract

Road infrastructure is a fundamental requirement for facilitating industrial, agricultural and other socioeconomic development. Inadequacy in road infrastructure in terms of quality and density usually entails prohibitive transport costs, lowers purchasing power especially of rural populace and ultimately affects welfare issues adversely. As one of the indicators of regional development, analyzing road infrastructure in Akwa Ibom State became expedient in order to x-ray the trend of development in the sector against the background of the ripples effects it has on other developments. To achieve this data on the total length of all the roads in the state and total area of all the 31 Local Government Areas in the state were obtained and analyzed while the levels of road infrastructure development in the rural areas were assessed using field observations conducted in 50 spatially sampled rural communities in the state. In all the sampled communities, the quality of road leading to sampled communities was measured in terms of type of roads (paved or un-paved), categories of roads, major means of transportation and usage intensity of roads. These were used as indicators or surrogates for assessing the levels of road infrastructure development. The influence of spatial factors of topological accessibility and distance of communities to nearest highway on levels of rural development were investigated using regression model. The result shows that the quality of road infrastructure in the state is poor and thus, indicates that the state is still backward in road infrastructure development despite its huge revenue profile from the federation account as an oil producing region. The quality of road infrastructure from the perspective of proportion of paved road per kilometre square is low and most LGAs are in vulnerable conditions. The influences of the accessibility index and distance factors on rural development in terms of stock of basic social infrastructure were very weak, implying that other factors play dominant roles to influence the provision of social infrastructure stock. Against the background of the gains of improved road quality in reducing poverty and enhancing good standard of living, it is recommended that the development of the road infrastructure be given priority attention in order to increase the inter-linkage effects between urban and rural areas and thus, reduce rural – urban disparities in development.

Social Infrastructural Facilities and the Rural Areas in Imo State, Nigeria.

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Abstract:

The paper examined the availability of some social infrastructural facilities in rural parts of Imo State. It equally examined the extent to which those facilities have promoted rural development in the state. Data were collected mainly from primary sources. A total number of 2,340 questionnaire copies were administered in 18 communities and all were retrieved for the analysis. Research findings revealed unevenness in the availability of potable water supply and telephone (analogue landline) facilities. However, the availability of electricity, educational and health facilities were largely indicated by respondents in the 18 study communities to be spread across the state. The paper noted some rural development implications as the result of the Z-test of proportion statistics led to the rejection of the null hypothesis and the acceptance of the alternative, which is that majority of rural areas in Imo State, have significant presence of social infrastructural facilities that enhance economic activities. It concluded by calling on the government and the rural dwellers to jointly evolve and implement plans that will eliminate disparities that exist in the provision of rural social infrastructure, amidst other suggestions made in the paper.

Key words: Social infrastructure, rural development, Imo State.

An Appraisal of the State of Social Infrastructures in Adamawa State

By

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Abstract

Infrastructures for the provision of water, good healthcare services, electricity supply and roads are critical for achieving necessary growth and development in any given region of the world. Nigeria is blessed with abundant human and natural resources, yet it lags far behind in terms of development. Many scholars, United Nations' Agencies and several International Organisations identify pointers such as non-implementation of policies and/or total lack of policy coordination between tiers of government, inadequate budgetary allocation for social infrastructure development and lack of maintenance culture plus poor governance and corruption as stumbling blocks to Nigeria's development. They also established that even the few inadequate social infrastructures such as water, health care services, electricity and roads that were in place since the 1980s in Nigeria have suffered neglect and are currently in a state of disrepair. With the seven-point agenda of the federal government adopted in 2007 and geared towards revamping social infrastructure in the country, there is every need to appraise the state of infrastructure state-wise to establish a launch pad for development. Thus, this paper is an appraisal of the state of infrastructure (related to water, health, electricity and roads) in Adamawa State. The aim is to assess the state of these infrastructures in terms of availability and adequacy vis-à-vis population of Adamawa. Findings of this study reveal that the state of infrastructure is poor and inadequate and thus services are also either poor or absent in most places in the state. This paper recommended setting up of measures that would ensure continuance of government policies, and the mandatory establishment of planning and statistics department, and monitoring and evaluation units in all ministries and Parastatals so that policies would be coordinated and maintained for the development of all.

AN OVERVIEW OF POVERTY AND ACCESS TO ELECTRICITY SUPPLY IN SOKOTO URBAN AREA

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Abstract

Over the years, it has been observed that rapid growth of large urban centres has out placed the government's capacity to meet the increasing demand for the provision of basic infrastructural facilities and services. Where these are found, poverty has become a great obstacle in their accessibility. There are two levels of poverty the absolute and relative. For long, the relative electricity or power outage in Sokoto and the country in general has been based on the risen demand due to increasing number of consumers and the management problem on the part of the government. Recent information indicates that the situation deteriorates rather than improve; however, this study shows that poverty amongst the populace has been a more decisive factor in availability and accessibility to electricity supply. This paper takes a look at the accessibility to urban electricity supply in Sokoto metropolis. A systematic random sampling technique was employed in administrating 505 questionnaires produced to the respondents from selected morphological units. The result shows that 75% of respondents are accessible to electricity supply while 25% are inaccessible due to their poverty level. Though, the inaccessibility is due to various reasons that include expensiveness, unavailability, erratic supply and others. The findings indicate that great synergy exist between poverty and accessibility to electricity supply in the urban areas.

INFRASTRUCTURAL DECAY IN IMO STATE: A CASE STUDY OF COLLAPSED REGIONAL WATER IN MBAISE AREA AND THEIR REPLACEMENT WITH BOREHOLES.

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ABSTRACT

This research sought to know why government abandoned a well articulated water project in Mbaise area of Imo State. Observation revealed that proliferation of boreholes in the area is as a result of collapse public water supply to the area. Government Agencies are of the opinion that the collapse of the regional water was caused by lack of fund, obsolete equipment, etc. The people also on the other hand accuse government of corruption, bad government and lack of maintenance etc that led to the collapse of the regional water. Site visitations, questionnaires were distributed; oral interviews and agencies responsible for provision of water in Imo state were interviewed as well. Strategies that can help government to reactivate the regional water were suggested.

The State of Roads and Their Impacts on the Quality of life of Rural Dwellers in Ika Community of Delta State, Nigeria

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ABSTRACT

This study addresses the state of roads and their impacts on the quality of life of rural dwellers of Ika community of Delta State. It took a critical look at the types of road and the network connectivity in the study area with the sole aim of understanding the topological characteristics of the network and its permissive role on adequate evacuation of agricultural produce on which the wellbeing of the rural dwellers depend. Data for the study were generated from both the primary and secondary sources; the primary data provided information on types of transport means the roads in the area permit for the evacuation of produce while the secondary data enabled the calculation of the connectivity indices of the road network. The study reveals that the level of road development in the area is below standard, with a 31.2% maxima connectivity, and network density of .27km per unit area of tarred road. In addition, up to 11 of the settlements were not linked to the road network. The study further revealed that above 70% of the means of transport used in evacuating produce from the farms are bicycles and motorcycles, which are what the types of road could permit. The study however, suggested measures that would help improve the road network in the area, which invariably would improve the evacuation of their farm produce.

THE PROBLEMS AND PROSPECTS OF INFRASTRUCTURAL FACILITIES IN THE DEVELOPMENT OF BENIN CITY, NIGERIA.

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ABSTRACT

Infrastructural facilities are the basic amenities that makes life worth living in any community. Since, it improves the socio-economic well-being of the inhabitants in any society. Data for this study were collected from primary and secondary sources. The primary sources of data were generated through the random administration of (300) questionnaires or respondents within the study area. The physical survey of the existing infrastructural facilities was also carried-out. Results from this study revealed that there is need for improvement and the provision of adequate electricity power supply, road networks, pipe borne water supply, communication services, drainage system, educational institutions and health facilities for the development of the study area. This therefore calls for government, NGOs, private and public concerns to assist in the provision of infrastructural facilities for the development of the study area.

Keywords: Problems, Prospects, Infrastructural Facilities, Development.

ROAD NETWORK CHARACTERISTICS IN EKITI STATE, SOUTHWEST NIGERIA.

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ABSTRACT

The pivotal role of transport in the socio-economic and political life of any city, region or nation cannot be over-emphasized. That is why government at all levels have shown considerable concern for efficient transport infrastructural provision. This, successive governments in Nigeria have demonstrated in their plan allocation to the transport sector and the road sub-sector in particular. Despite huge spending on upgrading the condition of roads, the condition of the country's roads remain bad. This study on road network characteristics in Ekiti State, Nigeria aimed at looking at the ownership, geographical spread and condition of the federal, state and local government roads in the study area. Physical survey and oral interview methods were employed to collect data on six selected local government areas across the three geo-political zones in the state. Result showed that all the three categories of roads (federal, state and local government) in the state are not in perfect shape with the state and the local government roads the most affected. The paper recommends adequate maintenance of the existing roads by the agencies concerned at all levels, introduction of the rail system of transportation to reduce the excessive load on road networks in Ekiti State, replacement of narrow (colonial bridges) along major roads and the involvement of the private sector in the provision and maintenance of road facilities in the state for effective road transport system.

Keywords: Road, Network, Characteristics, and State

IMPACT OF KOGI STATE UNIVERSITY ON INFRASTRUCTURAL DEVELOPMENT IN ANYIGBA, KOGI STATE, NIGERIA

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ABSTRACT

This study examined the impact of Kogi State University on the infrastructural development of Anyigba. Simple random sampling was employed for selecting a respondent. Questionnaires, Oral interviews, field survey, observations and mapping were employed for data extraction. The Student t- test was used at 1% level of significant to establish whether or not there is a significant difference in the level of infrastructure before and after the establishment of the University in Anyigba. Results of the study show that there is a significant difference in the level of infrastructure. For this development to be sustained, it is recommended that the Government provides adequate funding of the University through effective budgeting and ensure that there is adequate provision of basic infrastructural amenities such as water and electricity particularly.

State of Infrastructures and its Impact on quality of life in Rural Benin City

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Abstract

Infrastructures are prominent indicators of quality of life in a community that would engender endogenous growth, forestall rural-urban migration, boost economic activities as well as provide a high living standard in rural areas. This paper therefore attempts to examine the State of Infrastructures and its Impact on quality of life in Rural Benin. The study reveals that the present state of infrastructure in rural Benin is deplorable and would require urgent infrastructural provision and maintenance to stem the declining quality of life in these areas. The paper recommends the need for government intervention in terms of capital investment in rural infrastructural provision as well as the initiation and implementation of policies that improve quality of life and welfare in rural communities while reducing rural-urban migration.

Key words – rural infrastructure, quality of life

POTABLE WATER CHALLENGE IN THE LAGOS MEGACITY: CASE STUDY OF LAGOS STATE

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Abstract

In Nigeria water supply is facing serious challenges driven by rapid population growth, urbanization, budgetary constraints, corruption, and indiscipline. Despite billions of naira invested in water supply projects, supply is falling behind the demand of a growing population and development of new sources of water is increasingly becoming capital intensive. The paper reviewed the problems of water sector in Nigeria, problems of infrastructural decay in the water sector in developing countries and the challenges of potable water provision in Lagos State. The linear demand model was used to analyze the projected population and water demand for the zonal water areas in the state .The findings showed that the population of the state grows faster than the water supplied from public owned facility. The result showed that Projection at 3.94% population growth rate has implied that water demand will increase from 1,317.35ML/D in 2008 to 2,198.94ML/D by year 2020. The paper recommended that proper data collection, planning, maintenance of existing water facilities and investment /expansion of new water installations; and also appropriate legal framework and smart technologies for the water sector to function effectively.

Keywords: potable water; water demand, infrastructure; megacity; population; projection and urbanization.

ASSESSMENT OF WATER QUALITY CONSUMED BY STUDENTS AND ITS HEALTH IMPLICATIONS ON THEIR ACADEMIC PERFORMANCE: THE CASE OF FEDERAL COLLEGE OF EDUCATION, ZARIA.

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ABSTRACT

This paper examined the quality of water consumed by students of Federal College of Education Zaria and its implication on academic performance. Three water samples namely: Tap water, Bore-hole water and Well water were sampled from three locations namely Federal College of Education Zaria, Angwar kaya, and Gyallesu settlements and taken for laboratory analysis to determine the elemental concentration of heavy metals using X-ray fluorescence. Data gathered from the questionnaire is summarized using simple statistics such tabulation. Chi square and Kruskawalis analysis of variance were employed to test the stated hypotheses. Laboratory result indicated a high concentration of heavy metals reaching toxic levels e.g. the concentration of Chromium ranged from 1.97ppm to 3.05ppm, Iron ranged from 0.12ppm to 7.84ppm, Arsenic ranged from 0.59ppm to 0.80ppm, Lead ranged from 0.85ppm to 1.15ppm etc. The research further revealed that students are already manifesting some symptoms indicative of heavy metal poisoning. Various ill-health experienced by students have interfered with their learning process and outcome as evident in their inability to concentrate, recall, participate in classroom exercise and absenteeism from class resulting in low achievements. Flushing of pipes before water consumption, affiliation with federal organizations such as NAFDAC and consistent monitoring of water supplied by the school authorities via department of works, are recommended measures capable of improving and maintaining water quality.

THE PROVISION OF PUBLIC PRIMARY SCHOOL FACILITIES IN NASARAWA STATE.

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Abstract

This paper examines the provision of public primary school facilities in Nasarawa state. The major data source for this study was obtained from the records of Nasarawa state Primary Education Board (SPEB) and official population projections and estimates. The study findings revealed that there exists marked variation among the Local Government Areas (LGAs) with regards to the provision of public primary school facilities in the state. The ratio of primary school to area in km² for the state is 1:24, while the ratio of primary school to population for the state is 1:1647. Mean primary school enrolment for the state is 296. Pupil enrolment in primary schools in the state has a marked spatial variation-indicating high inadequacy levels. Pupils to classroom ratio for the state are high. All through the years, there has been increase in the number of streams of classes than the number of classrooms. This has given rise to large class sizes-indicating inadequacy in the number of classrooms and population pressure on the classrooms available. The study concludes that in Nasarawa state, overcrowded and large classes are the reality, and the inadequacies of the present are bound to remain for a long time if the little improvements made are neutralized by rapid population growth. Against the background of the increasing school –age population coupled with increasing enrolment, unless the existing stock of classrooms is increased by building new facilities, the demand on the stock of classrooms will overstrain them the more. It was recommended that more schools and classrooms needed to be constructed in order to accommodate 100 percent enrolment of school-age population in the state.

THE ABUJA MASTER PLAN AND INFRASTRUCTURAL PROVISIONS: IMPERATIVES FOR CULTURAL CONSIDERATION.

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ABSTRACT

To have a proper grasp of the political, social, economic and technological developments of Man in time perspectives, the knowledge of the environment is very important. The impact of Man's environment on his cultural pattern or behaviour is of significant interest not only to the geographers, planners, anthropologists, architects, builders, etc but also to the historians since historians focus on Man and the dynamics or changes that affect Man over -0 time. Recently, interest heightened on the Abuja Master plan and the infrastructural provisions in the territory due mainly to the high cost of living in the city, congestion on the main outer routes, development of squalor settlements, high crime rates and the associated poor resettlements schemes. This paper attempts at discussing the impact of the Abuja Master Plan and the infrastructural provisions on the culture of the inhabitants (both the indigenes and the settlers) of Abuja. It advocates the need to put into consideration the cultural values or norms of the society in terms of planning, design and execution of the infrastructural provisions based on the Abuja master Plan. The distortions and improper execution of the Master Plan and the resultant effects are equally discussed.

SOCIO-ECONOMIC EFFECTS OF DEMOLISHING SQUATTER SETTLEMENTS AND ILLEGAL STRUCTURES IN ABUJA METROPOLIS, FEDERAL CAPITAL TERRITORY, NIGERIA.

VICTOR G. OBASANYA AND ISHAKU I. YARI MALLO.

ABSTRACT

Abuja the Federal Capital Territory and study area is located between latitudes $8^{\circ} 25'$ and $9^{\circ} 25'$ north of the Equator and longitude $6^{\circ} 45'$ and $7^{\circ} 45'$ east of Greenwich Meridian. The study was carried out in Abuja Phase 1, and it is aimed at highlighting various socioeconomic effects of demolition of illegal structures and informal or Squatter settlements on the people within the study area. Some of these effects are reviewed and they form the bulk of data collected. Data was collected through reconnaissance survey, personal interviews with respondents, and a well laid out questionnaire. Other sources include documented information, secondary data, maps and images. The results indicate that the demolition exercise embarked upon by the authorities in the FCT was a response to the obvious flagrant abuse and distortion of development policies and guidelines of the Abuja master plan. Unscrupulous land speculation manifested through indiscriminate conversion of flood plains and green areas, unprecedented and spontaneous growth of slums and squalid settlements leading to the collapse of infrastructure and other essential services was the order of the day in the FCT. The results further show that the approach towards correcting these glaring distortions was fraught with anomalies and the demolition exercise was not without its attendant negative effects on the people. Some of the effects came in the form of increased crime rate and prostitution, homelessness, increased unemployment and the spiral effects of poverty among others. Untold losses running into hundreds of millions of Naira was inflicted on the people, some due to their stubbornness and some due to high handedness of the authorities charged with the demolition exercise. The compensation alternative provided by the authorities has been inadequate considering that not all the settlements have been relocated to alternative locations. Furthermore, the outdated land use act obviously requires amendment to accommodate present realities and it is hoped that the land reforms which is a cardinal objective in the 7 point agenda proposed by the administration of President Umaru Musa Yar'adua will proceed without further delay. The authorities of the FCT on their part must ensure the application of due process before undertaking future exercises of such nature and the immediate recovery of demolished sites putting them into the appropriate use intended. By and large, the involvement of slum dwellers to participate in such decisions will help stave off undue acrimony and litigations arising from such exercises.

NATIONAL HEALTH POLICY AND MATERNAL HEALTH: THE VULNERABLE POPULATION IN NIGERIA.

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ABSTRACT

The real wealth of any nation is its people, therefore governments all over the world invest in the health care sector in order to have a healthy population which will enhance the accumulation of wealth for economic development. The Nigeria government put in place a health policy to cater for health of its citizen Maternal health healthcare was prioritized because of the important role females play in the reproduction of the population..There are however inadequate adolescent health care services despite their being part of the female reproductive group. This is evidence by their higher rate of mortality and their children. This study therefore identified those special reproductive health care services needed by adolescents. And suggested that policy makers and health care providers should put in place policies that are adolescents friendly in particular because adolescents have special material health need due to their physiology and experience which may not be ready for child bearing as at the time they started.

SPATIAL DIMENSION OF CHANNEL RESPONSES TO URBANIZATION IN A TROPICAL CITY

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Abstract

Spatial interpolation techniques were used in examining channel responses of some drainage basins under different stages of urbanization to land use in Ilorin, Nigeria. Data used were generated from direct hydrographic measurements of basin's width and depth. Morphometric characteristics of the studied basin such as area and length were computed from Ilorin NW topographical map on scale 1:50,000. Descriptive statistical techniques were subsequently used in analyzing the data collected. Result obtained revealed that channel changes in the downstream segments below the urbanized area are substantially larger than predicted from natural channel. So, also, different spatial patterns were exhibited downstream in the studied basins which reflects difference in landuse characteristics in the basins. Thus, various landuse management techniques were suggested towards curbing the menace of landuse degradation problems in the study area.

The Spatial Dimension of Accessibility to Health Care Infrastructural Facilities in Kaduna State

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Abstract

The study tried to assess the nature of access to healthcare facilities (particularly Hospitals) in the 23 LGAs of Kaduna State. Using methods such as the ratios of health resources to population as well as service area and walking radius to hospital, the study analysed data obtained from the state Ministry of Health. The result, therefrom, show that none of the LGAs has a ratio within the WHO recommended standards, though some urban LGAs especially in the state capital fared better. What more, using the second method, the study shows that only Kaduna North and South have adequate hospital services i.e. within the recommended standards, all others have figures poorer than the standards. In fact, some hospitals in rural LGAs have service areas and walking radius several times more than the recommended. It was therefore concluded that effort should rather be concentrated on areas with serious deficiencies, rather than duplicating development efforts in already privileged areas.

The State of Educational Infrastructure in Ika South Local Government Area, Delta State.

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Abstract

This study was conducted to analyze the state of Educational facilities in Ika South Local Government Area of Delta State. The issues raised were the availability and adequacy of educational facilities in public and private schools as well as the provision and management of facilities in schools. Based on the analysis of the data collected some findings were made. It was discovered that educational facilities were not adequately provided both in public and private schools and that the available facilities were not properly managed. Based on the findings of the study, some recommendations were made.

An Appraisal Of Duku Lade Irrigation Project In Patigi Local Government Area Of Kwara State, Nigeria

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ABSTRACT

This study appraised the Duku-Lade irrigation project in patigi local Government Area of Kwara State. The design specification/blue print of the irrigation project was matched with the implemented project. The objectives of the study include: matching design with the implementation of the project in order to tackling environmental problems such as seepage, water logging, salinization; design and implementation of cropping pattern and crop combination; design specification and implantation of the headwork structures; determine the level of environmental degradations that are commonly associated with the use of mechanised equipment for land preparation such as land grading, levelling and smoothening. The design, the feasibility report and the manual evaluation reports prepared by the monitoring and evaluation unit of the Kwara state ministry of Agriculture and Natural resources were studied. Similarly, the master plan which specified the design specification for carnal lining, ancillary structures, irrigation methods and phasing of the entire project were studied. The two set of questionnaire were prepared:(1) administered to the officials of Kwara State Ministry of Agriculture and Natural resources, Federal Ministry Of Agriculture And Water Resources and the contractors handling the project.(Jades Ventures Ltd);(2) set of hundred(130)questionnaire were administered to thirteen (13) respondent in each of the ten villages covered by the irrigation scheme. Results obtained indicate that concrete or stone-pitching lining was designed for the canals but grasses were planted instead, which led to water logging. The design for crop combination is mono cropping but mixed cropping is being implemented, particularly in the non-commandable areas. Also, design of upstream approach walls was to be concrete but compacted sand was used.

KEYWORDS: Irrigation, Implementation, Environmental Degradations and Design Specification

SUB – THEME 3

**Sustainable Development and
Infrastructure**

DIMENSION OF INFRASTRUCTURE DEVELOPMENT IN NASSARAWA STATE OF NIGERIA: A REGIONAL ANALYSIS IN PLANNING.

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Abstract

The paper is entitled "Dimension of infrastructure development in Nassarawa State of Nigeria: A regional analysis in planning". It examined the spatial aspects of infrastructure development in the study area and produced a comparative analysis of the areal distribution of the facilities. Data were collected on infrastructural variables through the administration of seven hundred and eighty (780) questionnaires among the randomly sampled population in the thirteen local government areas of Nassarawa State. The study employed standardized score (Z-score) analytical technique in the processing of data. The study revealed that some areas enjoy more than their average shares of the infrastructural facilities. For instance, Lafia (State Capital) dominates the facilities with a value of 7.42; followed by Keffi (3.31), Nassarawa (1.70), and Toto (0.01) are found to be well-off in the infrastructural facilities at the expense of disadvantaged areas such as Doma (-0.2.7), Akwanga (-0.39), Karu (-0.63), Obi (-1.41), Keana (-1.43) and Awe (-2.81). On the basis of the findings, one recommends among other things, that community self-help development projects such as construction of roads, supply of drinkable pipe-borne water and electrification should be encouraged in order to reduce heavy dependence on the government. Moreover, increased investment in infrastructure development is advocated for under-privileged areas with a view to accelerate a balanced development.

EFFECTS OF NEOLIBERALISM ON THE PROVISION OF SOCIAL INFRASTRUCTURES IN NIGERIA

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ABSTRACT

This paper examines the impacts of Neoliberalism on the provision of social infrastructures in Nigeria, using health facilities as a case study and the states of the federation as the spatial units of analysis. Data were sourced from the Federal Office of Statistics (FOS) and the National Bureau of Statistics. The Data were descriptively analyzed and the Gini coefficient as well as its associated Lorenz curves were employed to ascertain the degree of inequalities in the provision of health facilities before neoliberalism became an explicit policy objective of the government and after. The findings reveal that spatial inequality in the provision of health facilities increased from 20% to 45% as a consequence of neoliberalism. The paper thus demonstrates that neoliberalism has a regressive spatial and social impacts. The conclusion reached is that the development of social infrastructures should be an important policy priority of the government. A policy that encourages the systematic withdrawal of the government from actively participating in the provision of essential social infrastructures is not desirable.

Keywords: Neoliberalism, Social infrastructure, Provision, Inequality, Health facilities, Nigeria

EVALUATION AND MANAGEMENT OF THE QUALITY OF HOUSEHOLD
**WATER SUPPLY FROM SUPPLEMENTARY SOURCES IN
OKPOKO SLUM SETTLEMENT OF ONITSHA URBAN AREA,
NIGERIA.**

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ABSTRACT

This paper is aimed at evaluating the standard of water quality collected and consumed by households in Okpoko slum settlement from 3 supplementary sources of rivers, Wells and rain water, determine the water related diseases associated with this consumption as well as suggesting water quality management measures. Data were collected from questionnaires designed for the purpose and information from hospital sources from which we identified 11 water quality Parameters for analysis using titrimetry method for chemical analysis, multiple alga plate count for micro biological analyses and various instruments for physical analysis. Result obtained were compared to WHO Standard which shows that river and Well water are heavily contaminated by high total coliform count in all the Layouts, while high values of Total Dissolved Solids (TDS) and Total Suspended Solid(TSS) are detected in the two sources for Mkpikpa, New Heaven, Niger East and Harbour Industrial Layouts. Other Parameters have values that are within reasonable limits. Analysis of water sample from rain water show that almost all but one of the Parameters are within permissible levels. Water borne and water related diseases that are highly associated with poor water quality of the affected sources are typhoid, dysentery diarrhea and Malaria. Water quality management measures were also suggested.

KEYWORDS: Water Quality, Supplementary sources, Water-borne diseases, Water diseases, Water quality parameters

**THE PRACTICAL IMPLICATION OF COMPLIANCE TO THE
NATIONAL POPULATION POLICY OF NIGERIA AMONG
PUBLIC SERVANTS IN KAURA LOCAL GOVERNMENT AREA,
KADUNA STATE**

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AND

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Abstract

Public servants were asked to indicate by consent whether they believe in the population policy and practice its provision of four children per family. Also policy compliance was determined on the basis of their levels of education, religion, and income. Reasons for non compliance were sought among employees of the public sector in the area. Results reveal that religion and levels of education have great impact on their decision on policy compliance. Income revealed no significant relationship with their decision on policy compliance using chi square test. The employees reasoned that complying with the policy was practically impossible, given that it impact on their religious beliefs negatively and that government could not provide alternatives to children for those who intend to comply with policy provision of four children. It was recommended that government should sensitized religious leaders on the need for small families.

Perspectives on Urban Renewal and Transportation Development in Lagos: Implications for Urban Development in Nigeria.

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Abstract.

Lagos city has emerged a growing Primate city, at least growing faster than any other city in sub-Saharan Africa in terms of population, urban renewal, roads and infrastructural development. The problems of urban development and transportation in Lagos can be summarized into the following: the problem of old narrow streets in most of the unplanned areas of the city and the emerging incursion of transport infrastructural facilities into the residential areas as a result of growing traffic volumes on Lagos roads. Similarly, the problems of haphazard city development and slum expansion due to increased population pressure has necessitated the current civilian administration in the state to take a massive renewal programmes. This is implemented through Public Private Partnership Initiatives. This has given rise to the building of the 'Atlantic City' and the Bus Rapid Transit. What happens in Lagos if extended to other states is being envisaged to be the panacea to urban development in Nigeria.

**STEMMING RURAL-URBAN MIGRATION IN THE
SOUTHEASTERN STATES OF NIGERIA:THE
INFRASTRUCTURAL DEVELOPMENT OPTION.**

DURU PAT

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ABSTRACT

Rural-Urban migration has been a major contributing factor to the growth of urban centres in Southeastern Nigeria. Both the Government and private individuals have concentrated infrastructural development in the cities to the neglect of the rural areas. This has led to continuous and alarming exodus of rural dwellers to the urban areas in search of better jobs and good living conditions. Data from National Population Commission and Federal Office of statistics have been used to analyse the trend of growth in the urban centres in these States. Based on the result of the analyses, suggestions were made on how to salvage the rural areas through infrastructural development to reduce rate of rural out migration.

THE IMPACT OF INTRA-URBAN ROAD NETWORK CONNECTIVITY ON SOCIO – ECONOMIC ACTIVITIES OF ADO-EKITI REGION, EKITI STATE

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ABSTRACT

Transport is a major part of infrastructure within which economic activities take place. It is a social activity which makes people mobile and travel safely. To this end, this paper examines the impact of intra-urban road network connectivity on socio-economic activities of Ado-Ekiti territorial region. Data required were collected through the administration of questionnaire and personal interview. The intra-urban road network connectivity was analyzed using the Gamma Index Concept to determine the level of road network connectivity. The result from the analysis shows that the level of the connectivity of the road transport network within the study area falls within an average despite the high level of socio – economic developments that have taken place in the area. However, it was recommended that, for an improvement on the socio-economic activities to improve within the principal thoroughfare, there must be adequate maintenance of the roads, provision of parking lots and upgrading of the drainage channels. Consequently, public enlightenment campaign must be intensified to sensitize the public on the consequences of dumping of refuse in the drainage channels to avoid road flooding mostly during the rainy season.

Key words:- Intra-urban road, Gamma Index, principal thoroughfare, connectivity.

POWER SUPPLY AND THE CHALLENGES OF SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract

Electricity appears to be the greatest developmental instrument which obviously has been drawing back meaningful development in Nigeria. This paper employs review and social approaches to appraise power supply in Nigeria and the attendant challenges of sustainable development. The study reveals that power is the least developed infrastructure despite huge investment in the sector and it is the most sought after and significant infrastructure. In view of these, Nigeria must rise and take its rightful place in the comity of nations by overhauling the social system which place central role in use, management and sustaining the earth system. This will forestall and help mitigate socio-economic and environmental vulnerability.

Keywords: Power supply, Sustainable development, Infrastructure, Vulnerability

**INFRASTRUCTURE AND THE DYNAMICS OF RURAL CHANGE.
A CASE STUDY OF ICHEKE, OMALA LGA KOGI STATE.**

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ABSTRACT.

The development of infrastructural facilities is to no measure of a great importance, especially in the transformation of the rural setting. This paper examine the role played by the enhancement and the development of physical infrastructures in changing the rural setting especially Icheke, Omala LGA of Kogi State. The paper studies and investigates the previous situation as compared to the present development. In addition to relevant materials, personal interview and field survey, a total of 120 respondents were randomly selected and interviewed using structured questionnaires. The data so derived were analysed using descriptive statistics. The result indicates that though the community had witnessed a long stay of zero development, the statusquo is gradually changing as there are improvements in Road construction, Hospital (Medical), Schools, Water, Electricity Communication and other facilities. It is therefore recommended that, for a sustained, improved, and positive change in the rural setting, Both the Government, the Community, NGOs and private hands should be involved in the provision and maintenance of infrastructural facilities.

KEYWORDS: Infrastructure, Rural change, Development, Communities, Facilities.

Open Spaces Management and Sustainable Future: A Case Study of Owerri Urban Area

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Abstract

Designated Open Spaces in the town are fast being leased out to private developers as opposed to direct development by the authorities and this negates public purpose principle. Also the green belts within the city's master plan, especially those protecting the Nworie and Otamiri rivers, were left inattended to leading to unacceptable encroachment within the river banks. The study aims at improving the quality and management of Open spaces through the following objectives. To identify the types of open spaces available, to identify how open spaces in urban Areas are managed and used, the problems associated with them and to examine the need for sustainable open space policy for the benefit of the people. In line with these objectives, the hypothesis which states that open spaces are not properly managed in Owerri Municipality was tested and analysed using information gathered from field observation, questionnaire, oral interviews, maps and from literature. Simple statistics were used to analyse and test the proposed hypothesis. The result of the hypothesis shows that open spaces are not properly managed in Owerri Municipality. Some of the research findings are that there are no Open Space Development Commissions in Owerri Municipality and some of the Open Spaces meant for relaxation as well as for the maintenance of the beauty of the environment have now been converted to different types of business premises. The study recommends that Government should pay serious attention to Open Spaces by improving the existing ones and adequate machineries should be put in place to check encroachment on corridor space, green belts and existing parks. Finally, that adequate personnel should be trained and those on ground retrained for sustainable Open Space Development and Management.

Keywords: Open Spaces, Management, Sustainable Development

SUB – THEME 4

Funding Issues and Infrastructural Development

AN ASSESSMENT OF THE CORRELATION BETWEEN GOVERNMENT BUDGETARY ALLOCATION AND ENROLMENTS IN NIGERIAN EDUCATION INSTITUTIONS

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ABSTRACT

Education is the bedrock of socio-economic development of a nation. Unfortunately, the state of education infrastructure in Nigeria is poor and inadequate. Thus, this study is an empirical assessment of the correlation between government budgetary allocation and enrolments in Nigerian educational institutions. This empirical study was conducted to ascertain the relationship between budgetary allocation and enrolments in education institutions in Nigeria. The study discovered that there is no significant relationship between budgetary allocations by the government to education institutions and enrolment into the institutions as well as the number of institutions being established in Nigeria. The study recommended that government should always take into consideration the enrolment into education institutions in making budgetary allocations to these institutions in order to provide adequate education infrastructure.

THE POLITICAL ECONOMY OF HEALTH INFRASTRUCTURE DECAY IN NIGERIA

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Abstract

The *raison d'être* for the existence of the state is the security and welfare of its people. This primary purpose of the state is given practical expression in the constitution of most states in the world today. The state exists to promote the common good, to provide the greatest happiness for the greatest number of people. The common good roughly equates the provision of public utilities, the provision of infrastructure. The state in Nigeria seems to be grossly inadequate in this regard. This paper examines the poor state of infrastructure in the country. It focuses specifically, on the dearth of health infrastructure in the country. Against the backdrop of the often parroted cliché, health is wealth the paper argues that the lack of and/or inadequacy of health infrastructure in the country has greatly affected the country's potentials. This is to the extent that the unavailability of relevant health infrastructure has been a major drain on the country's resources since people have to travel abroad for treatment. The reasons for the lack of or inadequate health infrastructure include but are not limited to lack of commitment on the part of government, corrupt practices and tendencies in the health sector, workers unrest in the health sector among other sundry issues. This paper argues that for Nigeria to overcome her health infrastructure challenges there is the urgent need for governments at all levels to devote a substantial part of their revenue to the health sector. Also the government needs to punish those found to be sabotaging genuine efforts at improving the health sector in the country. Improvements in the sector should be in terms of both personnel and equipment. Until the government is able to muster the necessary political will to tackle the problems in the health sector our hospitals may remain mere consulting units.

SUB – THEME 5

**Governance, Service Delivery and
Infrastructure**

**GOVERNMENT AND PRIVATE PARTICIPATION IN THE
MANAGEMENT OF TRANSPORT FOR YOUTH EMPOWERMENT
AND SUSTAINABLE DEVELOPMENT: A CASE OF THE
TRICYCLE MODE OF TRANSPORT IN KANO STATE.**

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ABSTRACT

The research examined and assessed government and private participation in the management of transports for youth empowerment and sustainable development in Kano state. To select the samples for the study, the target population was stratified into males/ females, users / operators of government and private tricycles. From the users of both ,150 samples were selected each making a total of 300 samples selected among the users and from the operators 100 samples were selected making a total of 200. Data was obtained from the primary and the secondary sources, the main source of primary data was administration of questions to the 500 samples and interview held with the management of the government's and private tricycle. In addition focal group discussion (FDG) was held with some of the operators and users of the tricycle. Data collected was analyzed using simple statistical techniques and chi square test to ascertain whether there was any significant differences in some of the variables tested. The results of the analysis revealed that the main difference was found in sex of users, daily balance of operators, ownership status of operators, income of operators. The recommendation of this paper is that the ownership of the tricycles should be entrusted to the youth who operates the tricycles and who are the target group for the government's poverty alleviation programme if youth empowerment and sustainable development is to be achieved.

ROADS AND HEALTH CARE DELIVERY: A SPATIAL STUDY OF RURAL AREAS OF EDO STATE.

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Abstract

This paper examines the effects of rural roads on accessibility to General Hospital facility in Owan East Local Government area of Edo State. The main objective was the examination of the health care implication of rural roads. Data used were collected from Primary and secondary sources which were analyzed descriptively and statistically. Findings show that most of the study settlements were very distant from the location of the General Hospital and all the roads leading to them were not tarred. Using these roads to the hospital and for other social-economic purposes was a problem. Some of the problems identified include high transport cost, inconveniences, accidents and sometimes death. Not many were always interested in seeking medical attention in the hospital due to these problems. Using alternative sources such as herbal centres and chemists has therefore become very rampant in the study area, and this also is having its consequences on the health of the people. To ameliorate these problems and create better health condition for these people, solutions were recommended.

PUBLIC SECTOR EFFORTS TOWARDS MASS HOUSING DELIVERY IN NIGERIA WITH SPECIFIC EXAMPLE FROM IMO STATE GOVERNMENT

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ABSTRACT

Acute housing problem is one of the problems being faced by Nigeria. Nigeria needs to construct over 18 million housing units from 1980 to 2010, according to United Nations Resolution 37/221 of December 12, 1982. This total number of units averages 1.5 annually. To be able to achieve measure, efforts has to be made not only by the government but also by different private organizations, corporate bodies and other agencies so as to provide enough and affordable housing for Nigerians. For instance, if Nigeria has to achieve its aim of becoming one of the developed economies by 2020, housing/shelter has to be provided to the population. The major constraint of housing development in Nigeria over the years has been traceable to ineffective implementation of past housing policies provided by the national development plans of the 1980's. The effect of this was near total collapse of mass housing provision of 1980's which resulted in excessive housing shortage thus compounding housing problems especially in our major cities. This situation informed the decision of past administration which in 1999 embarked on the reformation of housing sector to arrest the problem of housing in Nigeria. In the light of the above, the Imo state government established the Imo State Housing Corporation which was established by edit no. 14 of 1976. The corporation has the responsibility among others to design and supervise any staff or other housing scheme for the government. Between 1976 and 2009, the corporation has been able to develop thirteen estates with a total housing unit of 2301 in the state capital.

Keywords: house, housing, housing delivery, housing development

Lokoja Urban Water Supply as a Basic Service Programme in Kogi State: A Review of Achievements and Failures, 1991-2000.

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Abstract

In the course of his Presidential broadcast to the nation on the 27th of August, 1991, the then Military President of the Federal Republic of Nigeria, General Ibrahim Babangida created Kogi State with Lokoja as its Capital. The sudden change in the status of Lokoja from being a Local Government Headquarters to that of a State Capital coupled with serious neglect of its existing infrastructures right from the colonial days up to 1991, made Lokoja to witness numerous and unprecedented socio-economic problems. For instance, as a result of sudden high population growth and urbanisation, basic infrastructural facilities such as potable water supply, electricity, decent housing among others became grossly inadequate. Given the change of status and poor infrastructural situation of Lokoja, this paper attempts an overview of the state water supply infrastructures in Lokoja Metropolis before 1991. It also examines the population growth, water supply and demand in Lokoja up to 2020. Furthermore, the paper analysed what successive governments in Kogi State have done to ameliorate the water crisis, and found its efforts short of expectation. In addition, strategies for improved water supply are suggested. The paper concludes that the prevalence of water hawkers popularly referred to as 'Mai Ruwa' in Lokoja Metropolis and else where in the State in this millennium is an indication of government's failure to harness the abundant water resources of Lokoja town. And hence the inability of government to meet the water supply targets by the World Health Organisation.

ASSESSMENT OF WATER SUPPLY AND DISTRIBUTION IN LOKOJA TOWNSHIP, LOKOJA, KOGI STATE

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ABSTRACT

This study investigates the various sources of water available in the Lokoja Township, its distribution and their related problems when there is a shortfall in supply. It was found that the water supply and distribution in this area is inadequate even with the abundance of river Niger and Benue which seem underutilized. Water supply in the Lokoja Township apparently looks like a matter of preferential treatments in terms of abundance and quality of water availability to some areas to the detriment of others. It was however confirmed from this study that the water supply is a subject of environmental determinism as the terrain determines what kind (quality) and quantity of water an area gets. The study finally proffered attendant solutions to the inadequate water supply and distribution situation in Lokoja Township.

TRANSPORT CONSTRAINTS OF RURAL HOUSEHOLDS IN THE KANO REGION

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Abstract

The study attempted to identify the major transport problems affecting rural households within the Kano Region. Data was collected from 413 households representing 12.5 % of the households in the 28 survey villages. The data was obtained through survey and documented sources using structured interview and group discussion. The use of descriptive statistics was employed in the analysis of the data. Findings reveal that poor road network, infrequent and irregular public transport and high transport costs as the major mobility problems in the region. The study recommended that investments in transport should be holistic rather than focus on provision of road networks but also services and the needs of stakeholders and complementarities of different means of transportation. The study also recommended the improvement of the surface where transport take place and establishment of National Rural Transport Development Fund (NRTDB) to enable rural people acquire means of transportation.

Key Words: Transport, Constraints, poor road networks, NRTDB.

Access to Improved Sources of Water and Basic Sanitation Facilities in Minna Metropolis, Nigeria

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Abstract

This paper analyses access to improved sources of water and basic sanitation facilities in Minna metropolis. The aim is to find out if available facilities meet the WHO/UNICEF Joint Monitoring Programme (JMP) standards. Minna metropolis was divided into five clusters on the basis of contiguous neighbourhoods. A questionnaire was administered to a household in every sixth house to the left and right of the busiest street in each cluster. A total of 310 questionnaires were administered and 287 were found useful for the analysis, indicating a success rate of 95.5 percent. About two third (71.4 percent) of the respondents were males and 28.5 percent were females, also 77.4 percent of the respondents have attended a formal school. The results indicate that 92.3 percent of the households have access to access to water from improved sources while, 87.5 percent have access to basic sanitation facilities (n=287). Access to improved sources of water was not found to be significant by sex ($\chi^2=14.040$, $P<.384$) and by level of education ($\chi^2=63.590$, $P<.198$). Also, access to basic sanitation was not found to be significant by sex ($\chi^2=7.511$, $P<.524$) and by level of education ($\chi^2=38.047$, $P<.330$). The results also indicate that 83.9 percent of the households take less than 15 minutes to reach improved water sources. The result for sanitation facilities indicates that the proportion of households that share sanitation facilities with other households was found to be very significant ($\chi^2=28.414$, $P<0.001$). Although, the paper noted that access to improved sources of water and basic sanitation in Minna is quite impressive, there is need to improve on the water and sanitation situations as rapid rate of rural-urban migration could in the near future erase the gains that have been made. For a sustainable access to be ensured government has to improve the water and sanitation provisions to rural areas.

UNCONTROLLED URBAN GROWTH AROUND DORAYI AREA OF KANO METROPOLIS: THE PLANNING & INFRASTRUCTURAL IMPLICATION

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Abstract

This study examines the planning and infrastructural implication of uncontrolled urban growth around Dorayi area of Kano metropolis. This growth led to the emergence of unplanned urban environment with absolute or virtual absence of basic infrastructural facilities and amenities. A total of 84 respondents were selected via a combination of purposive and snowballing sampling techniques. The major finding of the study is there is the dearth of basic infrastructures in the study area and where they exist (though inadequate) are provided through individual and collective efforts of community members. The study concludes by recommending ways to ensure orderly development of the study area in order to sustain and improve its serviceability and liveability.

AN ASSESSMENT OF THE SPATIAL DISTRIBUTION OF AUTOMATED TELLER MACHINES (ATMs) IN ANYIGBA, KOGI STATE

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ABSTRACT

The Automated Teller Machine (ATM) as a device was introduced as part of the measures to boost banking services in Nigeria, when the banking sector was reformed few years ago. The ATM is a device used by bank customers to process account transactions. Most machines can dispense cash, accept deposits, transfer funds, and provide information on account balances. Banks have formed cooperative, nationwide networks so that a customer of one bank can use an ATM of another bank for cash access and account transactions. The four Geographic basic concepts (location, distribution, distance and interaction) were employed in explaining the spatial distribution of ATM devices. Field survey and the review of technical and research literatures were done to generate the data and information used for the study. Simple statistics and GIS techniques were used for spatial analyses. It was observed that the ATM devices were not evenly distributed in Anyigba, as a fast urbanizing town. ATM devices should be located in other parts of the town, especially along the major roads where they are lacking. Strategic planning and network optimization should also be implemented by commercial banks for efficient service delivery.

**AN ANALYSIS OF THE DEPRECIATION OF GOVERNMENT
HOUSING UNITS – A CASE STUDY OF LOKONGOMA HOUSING
UNITS IN LOKOJA, KOGI STATE.**

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ABSTRACT

Housing is one of the most essential needs of man. This is because his crave for good shelter cannot be under estimated. In order to alleviate the housing problem facing urban dwellers in Lokoja the capital of Kogi State (after its creation in 1991), government took a bold step by building several housing units. However, it was discovered that these housing units have been depreciating over time, without a combatant maintenance culture being practiced. This study is aimed at analyzing the level of this depreciation that has been observed, especially in Lokongoma Phase I and II Housing Units in Lokoja. Proper observation, administration of questionnaires and personal interviews were employed in gathering relevant data. The study revealed that indeed, government housing units are depreciating in terms of building standards, environmental and aesthetic quality. Recommendations were made on how to minimize to the barest minimum, the alarming level of depreciation and improve the general condition of these housing units.

Good Governance, Due Process, Project and Budget Implementation for Infrastructural Development in Nigeria

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Abstract

This paper highlights the importance of good governance, due process, project and Budget implementation with regards to provision and sustaining infrastructures in Nigeria. Information was obtained from text books, journals, interviews and reports. Nigerians over the years have witnessed myriads of economic and infrastructural failure due to fraudulent behaviours of those in authority. To curtail the irregularities inherent in the public and social service provisions and development of infrastructure in Nigeria, the Federal Government popularized the unit Due process to checkmate corruption and criminal activities. The paper concludes that despite the fact that due process is in place, still government machineries always device a way of beating the system and this does not augur well with infrastructure provisions and development.

Keywords: Governance, Due Process, Infrastructure, Implementation, Nigeria

SUB – THEME 6

Physical Environment and Infrastructure

CLIMATE CHANGE AND SPATIO-TEMPORAL VARIABILITY IN THE OCCURRENCE OF DRY SPELLS IN NORTHERN NIGERIA (1976 – 2005)

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Abstract

Spatio-temporal variations in the occurrence of dry spells in the Sudano-Sahelian region of northern Nigeria was investigated using 30 years (1976 – 2005) daily rainfall records for 15 stations. A day with rainfall equal to or greater than 0.25mm was considered as a wet day and one with less than this threshold was regarded as dry. Monthly dry spells of 5, 7, 10 and equal to or greater than 15 consecutive days for each station were subjected to analysis of variance (ANOVA) test to determine significant spatial variations in the occurrence of dry spells of the various lengths over the region. The total annual dry spell frequencies were used to draw graphs of 5-year moving averages and trend lines for each station to identify any significant trend in temporal variation in their occurrence. Results of ANOVA test show that the occurrence of dry spells of 5, 7 and 10 consecutive days at the beginning of the rainy season do not show any significant spatial variation over the study. However, the occurrence of equal to or greater than 15 consecutive dry days in May show a highly significant spatial variation at 1% level of significance. When the rains have stabilized (June – September), all the specified lengths of dry spells show very high significant variation in their spatial occurrences. The occurrence of 15 or more dry days exhibit spatial variation throughout the growing season. Trend analysis revealed that four locations (Bauchi, Yelwa, Potiskum and Birnin Kebbi) indicate increasing frequency of occurrence of dry spells between 1976 – 2005. However, at Gombe, Kontagora, Samaru, Maiduguri, and Katsina trend lines and equations show significant decrease in the frequency of occurrence of dry spells between 1976 and 2005. Trend lines and equations for Kaduna, Kano, Gusau, Hadejia, Nguru, and Sokoto, neither show significant increase nor decrease in the occurrence of total annual dry spells within the study period.

CLIMATE AND BUILDING STRUCTURES IN ADO EKITE TOWNSHIP

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Abstract

The study examined the impact of climatic elements on building structures in Ado Ekiti Township using two sources of data. Primary data were obtained through questionnaire administration, oral interviews and observation of building structures, while secondary data was abstracted from the archive of the Department of Geography and Planning, University of Ado Ekiti for a period of 12 years (1996 – 2007). The study particularly singled out the effect of rainfall for analyses with renowned areas of building structure damage. Ado Ekiti township was divided into three zones based on population and housing density, these are; the core zone, transition zone and the outskirts zone. A total of 100 questionnaires were administered using the purposive random sampling technique to the three zones on the basis of 50:25:25. Simple percentage score was used to analyse socio-demographic characteristics of respondents, while product moment correlation and chi-square techniques were used to examine relationship between damaged walls, roofs and structural damage/location analysis. Results obtained shows that 68% of the respondents were aged 50 years and above. This indicates a high level of maturity which reflected in the other responses. The mud/cement walling material was observed to have recorded the highest percentage damaged (47.04%). The relationship between damaged walls and rainfall, damaged roofs and rainfall were both positive and strong with correlation coefficient (r) of 0.98 each. Both relationships were significant at the 0.05% confidence level. There was however no relation between structural damage to buildings and location within the township. The research therefore concludes that since the highest number of structural decay occurs within the core zone, the zone should be seriously considered for an urban renewal exercise in order to address congestion problems.

Keywords: Climatic elements, rainfall, building structures, damages and relationship.

CLIMATE CHANGE: THREAT TO FOOD SECURITY AND LIVELIHOODS IN SELECTED STATES OF NORHTERN NIGERIA.

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ABSTRACT.

Food security, livelihoods and hence poverty elimination programmes are threatened by climate change. It is against this background that, this paper is aimed at examining the potential impacts of climate change on food security and livelihoods in selected states of northern Nigeria using meteorological data. The data used for this study were the monthly and annual rainfall totals as well the number of rain days per annum from selected synoptic stations in northern Nigeria for the period 1961-1990. The decadal and interannual variability in the time series of annual rainfall were determined as well as the trends in the time series of rain days per annum using co-efficient of variation (c.v) and regression/correlation analyses respectively. The dates of onset and retreat of rainy season for each year in each station considered in this study were also determined by Walter's (1967) technique. A significant variability was observed in not only annual rainfall but also the dates of onset and cessation of the rains at all the stations considered in this work. Further analysis of the result also reveals a downward trend in rain days per annum at Sokoto and Kano stations with Kaduna having only a slight reduction in its rain days per annum. The implication of such climate change-induced variabilities on food security and livelihoods were highlighted and discussed in this paper. The paper recommends that, the climate change management issues raised in this paper should be translated into decision and policy making by the stakeholders, in order to ensure food security in the region.

Key words: Climate Change, Food Security, Livelihood, Northern Nigeria.

ASSESSMENT OF THE ENVIRONMENTAL AND HEALTH IMPLICATIONS OF EXISTING SURFACE PONDS IN URBAN KATSINA

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Abstract

This paper is concerned with an assessment of the environmental and health impacts of surface pond water on the surrounding houses in Katsina walled city. Real time field observation and Focus Group discussion (FGD) form the basis of data acquisition. The use of Global Positioning system (GPS) was made to obtain the coordinates of the sampled ponds. In all, ten (10) ponds were randomly selected out of the thirty two (32) Ponds that exist in the walled city. Descriptive analysis was used in the presentation of results. The result of the interviews and observation reveals that dumping of solid waste, sewage from homes, erosion of some portion of the ponds, dilapidation of buildings, dampness of the surrounding houses, flooding of some neighbourhood and aesthetic nuisance were the major environmental effects of the presence of ponds in the neighbourhood. Also prevalent attack to diseases, unsanitary conditions and groundwater pollution were found to be the health impacts of the ponds on the surrounding household. The study recommends reclamation of the ponds, provision of permanent waste disposal sites and development control in the entire study area.

Keywords: Ponds, walled city, diseases, health, environment, urban Katsina

FARMERS' RESPONSES TO DROUGHT IN JIBIA LOCAL GOVERNMENT AREA, KATSINA STATE, NIGERIA

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Abstract

Drought is a normal, recurrent feature of climate, although many people enormously consider it a rare and random event. It comes in virtually all-climatic zones, but its characteristics varies significantly from one region to another. Its impacts on society result from the interplay between natural event (Less precipitation than expected resulting from natural climatic variability) and the demand people place on water supply. Frequent occurrences of drought in the arid parts of Katsina State has been largely responsible for the social backwardness and general poor quality of life especially among the less privileged ones. The droughts on many occasions were severe to have forced the inhabitants, particularly the labour and small farmers class to leave the nativity temporarily and go in search of a living to other places. The aim of this paper is to examine how farmers' in Jibia LGA respond to drought, what they think is the causes of drought, the effects of drought and their preparation against any coming drought. The study is based on interview scheduled and in-depth field observation. In all, 200 farmers were interviewed from four villages (Jibia, Magama, Daddara and Riko), and random sampling method was adopted to administer fifty (50) questionnaires in each village. The findings of the study revealed that 73.5% of the respondents believed that drought occurrence is an act of God, while 16.5% attest it to absence of rainfall for a long period of time. The study also showed that farmers are preparing against any coming drought as 51.0% and 24.5% believed they will resort to prayers and engage in dry season farming respectively. The method use in data analysis is based on simple descriptive statistics and percentages.

Keywords: drought, climate variability, farmers and communities

INTEGRATING RAINWATER HARVESTING INTO BORE HOLE AND WELL WATER INFRASTRUCTURE IN SAMARU, ZARIA, NIGERIA.

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ABSTRACT.

Providing sustainable infrastructure for water needs of urban dwellers has always been a challenge in developing countries. Consequently sinking of bore-holes has been advocated to complement domestic shallow wells. However the alarming rate at which wells are drying up in Samaru coupled with the growing number of commercial boreholes has been a source of worry. This paper addresses this issue using primarily sourced data. Ten boreholes and yield of wells from ten houses within 20-150 metres around were examined to understand the correlation between bore hole and the yield of shallow well. This was followed by a questionnaire survey of 300 households, observation and interview schedules. Among the major findings is that residents of Samaru have poor access to a minimum water requirement of 50 litres / day. It was also found that although the residents believed that bore-holes are the major causes of reduced yield/ drying of wells, there is no real fact to substantiate this assertion. While recognizing the need for more systematic studies in this direction, the prospect of integrating rain water harvesting to urban water system was explored and it was discovered that it is a welcomed development if only there is the will. Recommendations were made based on the findings.

Key words: shallow well, borehole, rain water harvesting, Samaru

AN ASSESSMENT OF WASTEWATER QUALITY FOR IRRIGATION AT AJIWA IRRIGATION PROJECT, KATSINA STATE

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ABSTRACT

This study is aimed at assessing the quality of discharged wastewater from Ajiwa waterworks for irrigation at Ajiwa irrigation project. Six (6) sets of water samples were collected covering wet and dry season of the 2008 irrigation period. The samples were collected from six different locations using purposive sampling technique. A total of 36 water samples were thus analyzed for their chemical constituent. Sample point 1 and 2 are located respectively at the upstream and downstream of the wastewater drain. Sample point 3 is located at the downstream of the new river course, while sample point 4 is located at the intersection point of new and old river course. Sample points 5 and 6 are located at the upstream and downstream of River Tagwai respectively. Results obtained were tabulated and statistically analyzed using simple descriptive statistical technique and graph. The results from the chemical analysis indicated that the water were in the C1-S1 class, meaning that, the water is suitable for most crops on most soil with little danger of the development of harmful levels of salinity, sodicity and toxicity hazard. However, there is the need for a deep study on the soil properties at Ajiwa irrigation project as they affected by the irrigation water quality. Also soil-water-plant relationships need to be carryout regularly in order to help in sustaining irrigation in the area, so that the bulk of vegetable crops consume in the Ajiwa village, Katsina and Nigeria at large is not force into abrupt extent.

Key word: irrigation, wastewater, waterworks, salinity, sodicity.

AN ASSESSMENT OF WASTE MANAGEMENT PRACTICES IN SOME SELECTED ABATTOIRS IN KATSINA, KATSINA STATE, NIGERIA

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Abstract

Because of high rates of (animal) resource consumption, cities face serious problems of high volumes of waste, characterized by inadequate disposal technologies, high costs of management, and the adverse impact of wastes on the environment. Abattoirs, or slaughterhouses, are a major source of water and air pollution worldwide. Waste generated by abattoirs in Nigeria includes condemned organs, carcasses, blood, hides, horns, hoofs, hairs, paunch content and carcass trimmings. The main waste disposal practice at some selected abattoirs in Katsina, Katsina state is dumping. This paper assesses the environmental and public health implications of unhygienic waste disposal. The waste management at the selected abattoirs is aesthetically unappealing, environmentally unsustainable and also makes the meat processed and offered for sale unwholesome. Waste disposal techniques of developed countries have been appraised. Recommendations to encourage the safe disposal of abattoir waste and limit the methods of disposal to those internationally permitted are suggested.

Keywords: Waste management; Abattoir; Nigeria

MAPPING LAND USE-LAND COVER AND CHANGE DETECTION IN KAFUR LOCAL GOVERNMENT, KATSINA, NIGERIA (1995- 2008) USING REMOTE SENSING AND GIS

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Abstract.

Land use/land cover (LULC) mapping and detection of change using remote sensing and GIS techniques is of paramount importance to planners, geographers, environmentalists, and policy makers' Infact to everybody who cares about human sustainable development. This paper is therefore an attempt to assess the Changes in land use/land cover in Kafur local government area of Katsina state, Nigeria over 13 year period. The study made use of Landuse/landcover map of the study area for1995 and Google earth imagery of 2008. The image and the map were digitized into GIS environment using Arc view 3.2 GIS software for analysis. A paired t-test analysis was also used to see if there was significant change in the land use/land cover between 1995 and 2008.The results show that open space covered 13.56 square kilometers of the land area and constituted 34.00% in 1995 which constituted the most extensive type of land use/land cover in the study area. The increasing population and economic activities were noted to be putting pressure on the available land resources. This paper highlights the landuse/land cover types, the change over the years and the causes of the change. The importance of remote sensing and GIS techniques in mapping and change detection was also highlighted.

Key words: Land use, land cover, mapping, change detection, Remote Sensing, GIS, land conversion

Recent Trends in the Rainfall Supply of Kafanchan and Its Implications for Infrastructural Development

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Abstract

This paper examines the recent trends in the rainfall supply of Kafanchan, the headquarters of Jema'a Local Government Area of Kaduna State. Annual and monthly rainfalls for the period 1974–2008 were analyzed using various statistical techniques. In order to identify trends, the rainfall series was divided into 10-year overlapping sub-periods 1974-1983, 1979-1988 through 1999-2008. The Cramer's (t_k) test was then used to compare the means of the sub-period with the mean of the whole record period. The results show that the t_k value for the annual rainfall for the period 1999-2008 was drier, but not of significant importance, while all other periods were wetter but also of no statistically significant importance. The monthly t_k test showed that only the sub-period 1974-1983 and 1999-2008 for the months of June and October respectively were significantly drier. The results of the Standardized Anomaly Index (SAI) revealed that the recent declining yield of annual rainfall started from 1990 to date. This substantial decline in the annual rainfall yield has resulted predominantly from a peak season (August) decline. Extreme events such as floods and droughts are always associated with rainfall trends and fluctuations. The implications on infrastructure and assets are an increased burden of the recurrent cost of repair/replacement, increased cost of community services and public safety. It is recommended that agricultural planning, government policies and infrastructural development in the area be based on recent rainfall trends.

Keywords: Droughts, floods, infrastructure, Inter-tropical Discontinuity, Kafanchan town, rainfall trends

REUSE OF WASTEWATER IN URBAN FARMING AND URBAN PLANNING IMPLICATIONS IN KATSINA METROPOLIS, NIGERIA

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ABSTRACT

Studies on urban farming in Sub-Saharan African cities reveal the existence of literatures in Eastern, Southern and Central African cities. A few have focused on West Africa. In Nigeria, there is a paucity of information on reuse of waste water in urban farming. The purpose of this paper is to examine the status of wastewater reuse in urban farming in Katsina, an important urban area in the semi arid region of Nigeria. A total of 120 households were selected and interviewed out of the total number of 250 that officially registered with the Katsina Urban Planning Authority. It was found out that the reuse of wastewater in urban farming in the area is an occupation that is not only practiced as a fulltime and sole income earner for many households, but an activity that the town cannot do without. Being a city located within a semi-arid setting, relying on rainfed for successful promotion of urban farming is certainly a risky enterprise and hence the practice virtually has no substitute. Unfortunately urban planning process has not officially recognised and given attention to this important activity in the town. Appropriate recommendation on how to promote the activity and get it integrated into planning processes in the area have been given.

Key word: Urban; Peri-urban; Agriculture; Farming; Semi-Arid; Nigeria,

TEMPERATURE VARIABILITY AND OUTBREAK OF MENINGITIS AND MEASLES IN ZARIA, NORTHERN NIGERIA

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ABSTRACT

Monthly maximum and minimum temperature records and reported cases of Meningitis and Measles in Zaria, Kaduna State for 10 years (1999 – 2008) were used to determine the influence of temperature on the outbreak of these two diseases. The results show that the reported cases of Meningitis and Measles are highest between March and April when the temperatures are also high. Results of the correlation analysis indicate that the reported cases of these two diseases have positive and significant relationship with temperature. Regression analyses show that about 78.4% and 84.5% of the variations in the occurrence of Meningitis and Measles respectively are accounted for by variations in temperature. The study revealed that the cases of Meningitis and Measles would increase by 6 and 19 persons respectively for every 1⁰C increase in temperature. It was found out that the traditional architectural setting of Zaria city also aggravates the effect of temperature in that part of Zaria.

KEY WORDS: Temperature, Meningitis, Measles, Diseases, Epidemic.

WASTE DISPOSAL AMONG THE UNDERAGE AND THE LOCATION OF WASTE DISPOSAL INFRASTRUCTURE IN SAMARU, ZARIA

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Abstract.

Waste is an inevitable by-product of human activities though creating a sustainable infrastructure for its management is always a challenge. Waste collection, disposal and scavenging in urban centres are aspects of management where underage children are involved. This paper employed primarily sourced data to analyse the activities of 62 underage waste collectors and explore how these can be used in planning waste management infrastructure in Samaru. Among the findings is that most of the children engaged in commercial waste collection and scavenging are in their early teens and income obtained are expended on basic needs and educational purposes. Using the average distance trekked from collection to disposal points, a distance of 600-640 metres is found to be to be appropriate in establishing waste management infrastructure in Samaru.

Key words: Under age children, waste management infrastructure, scavenging, Samaru.

Examination of the relationships amongst discharge, suspended and dissolved sediment discharges of samaru stream, zaria, Kaduna state.

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Abstract

This study examined the relationships amongst discharge, suspended and dissolved sediment discharges of the Samaru Stream, a 1st order basin with a total stream length of 1.05km, basin area of 2.28km², drainage density of 0.46km/km² and a relative relief of 30.48m. The stream was monitored for six months by collecting data on sediment concentration and stream. The data provided the basis of a suspended sediment discharge (Qs) – discharge (Q) rating curve which revealed the considerable scatter about the straight line relationship, with a coefficient of correlation (r) of 0.666 and coefficient of determination (r²) of 0.443 indicating that the stream discharge has a great influence on the level of suspended sediment discharge. It further provided the basis of a dissolved sediment discharge (Qd) – discharge (Q) rating curve revealing a considerable scatter about the straight line relationship with a very high coefficient of correlation (r) of 0.901 and correspondingly high coefficient of determination (r²) of 0.812 indicating that stream discharge has a strong influence on dissolved sediment discharge (Qd). Furthermore, the suspended sediment discharge (Qs) and dissolved sediment discharge (Qd) values for the catchment area were correlated for which they had a positive and moderately strong correlation value of 0.408 which was significant even at 0.01 level of significance indicating that there is no significant difference between both variables. These sediment discharges have great implication on the Ahmadu Bello University dam downstream with respect to its water capacity (Siltation problems) and water quality.

Linkages between Infrastructural Provision and Climate Variation and Change in Nigerian Cities: The Owerri Experience

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Abstract

Spatial and temporal variation and swings in regional and global climate is to a large extent influenced by local activities of the population. This relates to the alteration of forcings and changes in environmental systems through removal of land cover for another use. Provision of social amenities and infrastructures occur whenever these changes take place. The resultant effect manifests in alteration of the local meteorological parameters of the area, leading to variation in local climates of worrisome extents. The spate of land use and land cover conversions and change in Owerri metropolis and environs was achieved using remotely sensed data, and examined against variation of relevant meteorological indices between 1986 and 2000. The results showed positive correlation between size of built environment and rise in the urban temperature and negative correlation between built environment and relative humidity, among others. This implies that temporal and spatial land cover change for infrastructural development may be contributory to the swings in urban climate currently experienced in Owerri metropolis and environs.

Key words: climate variation, meteorological parameters, metropolis, land conversion

EVALUATION OF A LOW-COST TEMPERATURE MEASUREMENT SYSTEM FOR THE INVESTIGATION OF THE CHARACTERISTICS OF THE URBAN CANOPY HEAT ISLAND IN TROPICAL CITIES

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ABSTRACT

This paper present result of preliminary evaluation of the performance of a small size and relatively inexpensive self-contained temperature sensor and data logger, the Thermochron iButton within a simple design radiation shield. Thirteen iButtons and their respective shields were divided into two groups of five (facing up and eight (facing down) and exposed for a 24 h period under similar conditions to assess the precision of the sensors and efficacy of the designed solar radiation shields. Significant differences ($p < 0.05$) were detected between the two groups. The highest mean daily temperatures recorded by the iButtons shielded from the sun and facing down are lower and less variable than those exposed to the sun and facing up, with values of 31.6 °C and 34 °C respectively. However, the shielded iButtons facing up recorded the lowest mean and minimum daily temperatures of 23.7 °C and 19.7 compared to 24.2 °C and 20 recorded by the iButtons facing down. The mean precision of the two groups (facing up and facing down) were ± 0.41 and ± 0.62 respectively at the 95% confidence interval. In both groups the uncertainty was consistently low (< 0.5 °C) at night but increased with solar heating. It was however significantly lower for the systems facing down. The precision observed in this study for the systems facing down is in close agreement with values reported in the literature for similar iButtons. Our preliminary evaluation has been positive and has given us an insight into the performance of the sensors and the limitations of our present radiation shield design. Based on our results, another shield was designed to incorporate a shield for the longwave terrestrial radiation, which included a white plastic disc at the bottom to shield. The result show a perfection of the shield, as it was compared with a standard thermometer and aspirated as control.

Keywords: Thermochron iButton, temperature measurements, urban canopy heat island, tropical cities

AN ASSESSMENT OF THE CURRENT LEVEL OF SILTATION OF THE GALMA DAM, ZARIA, KADUNA STATE

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ABSTRACT

The Galma dam was constructed in 1973 and completed in 1974 for the sole purpose of supplying treated water to the Zaria community. Since the completion of the dam, there has not been any study aimed at appraising its designed storage capacity in view of the widespread poor land use practices over the dam's catchment area which accelerates soil erosion. The level of sedimentation of the lake was determined by measuring the depth of the lake from its surface to its bed during the dry season at intersects between grid lines designated as sampling points. In all, there were 48 sampling points over the lake area for the purpose of collecting data on depth of lake. Results obtained shows that from its initial depth of 14m, the lake has lost about 5.2m depth to sedimentation representing about 37.1% storage loss in 35 years. This implies that the storage capacity of the lake has reduced considerably and has serious implications for future water supply to the Zaria Community. If this present rate of siltation continues the lake can become completely silted up and turned into a weed-infested marsh. Since the lake is the life line of the Zaria community, remedial actions are needed to dredge the lake and manage soil erosion problems all over the catchment area in order to ensure its sustainability.

TOWARDS EFFECTIVE PHYSICAL PLANNING IN LOCAL GOVERNMENTS IN NIGERIA

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Abstract

The role of local governments, in physical planning, in the Nigerian cities, have been emphasized. The contributions of local governments to planning in the cities have been traced to 1900, with the subsequent evolution of legal backings. It was concluded that the local government system in Nigeria needs reconfiguration for effective physical development, especially in the area financing. Suggestions were put forward as to solution of these problems.

ASSESSMENT OF SOIL PROPERTIES UNDER SMALL HOLDER FARMING PRACTICES FOR FOOD SECURITY AND SUSTAINABLE ENVIRONMENT IN A SUDAN SAVANNA REGION.

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Abstract

This study examined soil properties under small holder agricultural landuse practices as a tool for ensuring food security and a sustainable environment, in a sudan savanna region of Nigeria. Soil samples were collected over small holder irrigation and rainfed fields as well as over a fallowed woodland plot serving as a control. The soils were analyzed for particle size fractions, organic carbon, total nitrogen, available phosphorus, soil pH, exchange acidity and cation exchange capacity. The results obtained show that sandy loam and sandy clay loam textures occurred at the top soils of the fallowed /rainfed plots and subsoil of the irrigated plot, while the top soil of the latter had a loamy texture with greater amounts of silt content. The organic carbon contents of both the irrigated and rainfed plots are comparatively lower than the fallowed plot. Both total nitrogen and available phosphorus contents show the following decreasing trend: Irrigated > rainfed > fallowed. The fallowed soils were moderately acid, the irrigated soils slightly acid with the rainfed soils showing strong acid conditions. However, the cation exchange capacity of the fallowed soils was highest followed by the rainfed soils and least values occurred over the irrigated soils. On the whole, the relatively lower organic carbon contents and CEC of the irrigated and rainfed plots are indicative of soil degradation. Other implications of the observed trend and possible soil management practices with respect to sustainable agricultural production and hence food security have been highlighted in the text.

Key words: Food security, soil properties, rainfed, irrigated, fallow.

SPATIAL ASSESSMENT OF FRESH WATER SUPPLY IN SOUTH WEST NIGERIA

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Abstract

Water is an essential commodity with an unparalleled value after air. This paper is designed to assess the spatial pattern and implications of fresh water supply in major cities of south west Nigeria. Considering the relative importance of water to life, the provision of hygienic and reliable water for human consumption is of great priority. Data were collected with the aid of questionnaires and oral interviews from randomly sampled subjects within the study area. The study reveals a significant spatial disparity in the state of infrastructures, availability of fresh water which is perceived to have impact on potable water provision by the government. New layouts have the highest availability and consumption of fresh water with the rural- urban fringe having the least. The study suggests the need to further strengthen the institutions saddled with water supply provision by adequately financing infrastructure and equipments maintenance and management.

Keywords: Spatial, Fresh water, Institutions, south west Nigeria

ANALYSIS OF THE CONSTRUCTION OF NEW KADUNA MILLENNIUM CITY BRIDGE ON THE SOCIO-ECONOMIC LIFE OF DANBUSHIYA

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ABSTRACT

This study analyses the impact of the construction of the New Kaduna millennium city bridge on the social and economic life of Danbushiya. Data was derived from a combination of direct field observations combined with structured and unstructured interviews of 120 residents of Danbushiya. The study revealed that the bridge has facilitated direct physical accessibility and this has already started to impact positively on the physical and socio-economic development of the area.

ENVIRONMENTAL IMPLICATION OF THE STATE OF URBAN PHYSICAL INFRASTRUCTURE IN NIGERIA

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Abstract

Infrastructure is the key to urban development. It is the physical structures and facilities that are developed or acquired by public agencies to enhance governmental functions and provide water, power, waste disposal, transportation and similar services to facilitate the achievement of common social and economic objectives. This paper dwells on the various forms of physical infrastructure in the urban centres of Nigeria and their level of performance vis-à-vis the state of their existence and their implication on the environment. In analysing the efficiency of the transportation network, the line pattern technique was employed while the nearest neighbour technique was used in assessing the pattern of distribution of other urban physical infrastructure (water supply, communication network, waste disposal, drainage and sewerage systems and housing) within the urban centre. Deductions show that the problems confronting urban infrastructural development and management are both from the government and the urban inhabitants. However, suggestions are raised as to the ways of ensuring improved service delivery that will enhance urban development and improve the quality of the human environment therein.

TEMPORAL VARIATION OF MALARIA OCCURRENCE IN KANO MUNICIPAL LOCAL GOVERNMENT AREA.

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Abstract.

This study examined the temporal variation in the occurrence of malaria infection in Kano Municipal L.G.A. Secondary sources were used to generate data for the study, including 16,601 recorded hospital cases between 2001 and 2005. The disease was found to affect females (54%) more than males (46%) and children in age 0-5 and 6-10 years accounted for 18.6% and 15.1% respectively. Seasonally, the disease was observed to be more rampant in dry seasons (mid-September to mid-May) than in the wet season (mid-May to mid-September). The trend of the occurrence is increasing annually with the highest incidence in the year 2005 constituting 34% followed by the year 2004 and 2002 accounting for 25% and 16% respectively, while the incidence decreases in the year 2003 and 2001 constituting 15% and 10% respectively. The findings also revealed that the incidence is high in the months of April (15%) and March (12%) in the study area, and very low in the months of December (4%) and November (8%). Many factors are believed to have contributed to the increasing trend which includes the presence of open gutters, stagnant water in the ponds, improper waste disposal and the congested settlement pattern that facilitates the malaria occurrence and related diseases. It is recommended that keeping the environment clean by maintaining proper sanitation is the best solution, and government should provide mosquito nets at an affordable price to the general public in order prevent the disease.

KEY WORDS: Malaria, Occurrence, Seasons, Environment, Temporal Variation.

APPLICATION OF CORRELATION STATISTICS TO DETERMINE THE SOCIO ECONOMIC EFFECTS OF DEFORESTATION ON THE ENVIRONMENT AND INFRASTRUCTURE IN DEKINA LGA OF KOGI STATE.

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ABSTRACT

This study examines the socio-economic effects of deforestation in some selected communities of Dekina Local Government Area, Kogi State using Pearson correlation statistics. The objectives therefore, were to access the extent, causes, the negative and positive effects of deforestation on the socio-economic environment and infrastructural development. In order to achieve the objectives, data were collected from 33 communities, the selection of which were based on their relative locations in areas liable to deforestation activity. The instruments used to generate data were the checklists. Data were presented using the frequency distribution tables. Pearson correlation matrix was performed on the data to establish relationship between the variables being analyzed. Subsequently, a table of Matrix for each of the three principal impacts was established. The Principal Component Analysis (PCA) was performed on the data using an SPSS package programme which enabled us to determine the basic underline factors of deforestation. The result of the Relative Frequency count shows that out of 19 variables examined 13, expressed negative impacts while 6 positive relationship with deforestation. A number of mitigation measures were advanced to reduce the negative consequences of deforestation on the environment and infrastructure of the study area.

Key words: Application, Correlation statistics, Deforestation, Impact, Environment, Infrastructure.

DEFORESTATION IN DEKINA LGA: Local Perception and Coping Strategies

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ABSTRACT

Deforestation is not a new phenomenon. It began when man first colonized the earth. Philosophically, it is as old as man himself. Relatively, the impact it generates and the implications thereof provokes colossal damages on both human and environmental resources. This study therefore relied on the examination of the environmental impact but more importantly on the feelings of the local population on the negative impacts in the study area. The study also investigates the varied ways this menace could be mitigated. The objectives therefore were to assess the extent, causes and the negative impacts of deforestation on the environment of Dekina. It also assessed mitigation measures and official efforts already put in place to avert negative impacts. The study covered substantial aspects of the biophysical, socioeconomic and health environments of Dekina.

Key works; Deforestation, Forests, Impacts, mitigation measures, Afforestation.

THE RELATIONSHIP BETWEEN CONTRIBUTORY FACTORS TO CLIMATE CHANGE AND AGRICULTURE IN NIGERIA.

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ABSTRACT

This study reviewed the contributory factors to climate change and its impact on agriculture in Nigeria. The main factors considered in this research include: deforestation, gas flaring, waste disposal, oil spillage and bush burning. As revealed from the results, Nigeria has the highest deforestation rate globally (lost 55.70% of its primary forest between 2000 and 2005). Gas flaring in the country is about 2.5 million cubic feet per day. The country is expected to witness a reduction in agricultural production in the final 3 decades of this century (2080s) as result of changes in temperatures and precipitation. Also, a downward trend in rainfall and upward trend in temperature as recorded in this study are indicators of persistent climate change crisis. The enormous task ahead of Nigeria is to develop adaptive measures through education on environmental protection and enforcement of environmental protection laws with emphasis on the reduction of greenhouse gas emissions, since climate change and its impact on agriculture is inevitable.

NIGERIAN ENVIRONMENT INDUCED NOISE POLLUTION: a biogeographical analysis

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ABSTRACT:

The combined impacts of the various infrastructural development, population growth and environmental degradation in Nigeria on noise pollution are a matter of concern to government, individuals and groups. Similarly, the type and magnitude of noise generated across the states of the federation, particularly in the growing urban centers has attracted the attention of government and individuals. Discussions on this scenario are in no small measure gathering momentum and they are high on the agenda of most governments and their agencies. It is in that regard that we agitated study of this type. The structure of the work therefore covers comprehensive theoretically sourced materials for analysis. We also investigated through filed observation within some limited urban settings in order to complement secondary sourced materials. The construction and installation of community-based infrastructures (e.g. roads, schools, boreholes and light) have been considered as constituent factors of the increasing level of noise in the country. Pollutant effects remains obvious and the implications on the population and their resources grows unabated, considering the high rate of population growth and resource usage in Nigeria. Mitigation measures and management strategies focused on noise reduction have also been outlined. These encompasses, community based efforts, concerted actions of constituted agencies, government and international organization.

Key words: Infrastructures, Environment, Noise Pollution, Biogeographical Analysis, Degradation.

TEMPORAL CHARACTERISTICS OF DROUGHT IN THE SUDANO – SAHELIAN REGION OF NIGERIA AND ITS IMPLICATION FOR INLAND WATERWAY TRANSPORTATION.

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Abstract

Drought occurrence in the Sudano-Sahelian region of Nigeria has become a re-occurring feature. This paper examines temporal characteristics of Drought in the Sudano-Sahelian region of Nigeria. The temporal nature of drought in the region was quantify using the method of H.N.Bhalme and D.A.Mooley. Results show that the duration and severity of droughts varies from sub-period to sub-period, yet there has been a general persistence of drought in the region since the 1970s with respite in recent years. Analysis showed that stations in the Sahelian zone (Kano, Maiduguri and Sokoto) had the least amount of rainfall during the study period (1941 to 2006). Finding showed that the region has been undergoing increasing aridity for sometime. The implications of these on the inland waterway transportation system is highlighted with recommendations.

Keywords: Drought; Sudano – Sahelian; Nigeria; Inlandwaterway; Temporal.

The Challenges of Nigerian Roads and Strategies for Improvement

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Abstract

Nigerian roads have been rendered impassable because of certain challenges which are manifested in form of potholes, falling bridges, cracks, furrows, wash- offs and so on. Thus, this paper points out the challenges of Nigerian roads like faulty designs, overuse of the roads, inadequate articulated programme for road maintenance, inadequate funding e t c upon which strategies for improvement were put forward. Specifically, the strategies for improving the state of the roads in Nigeria were highlighted in this paper and they are:- adequate qualification of road engineers, establishment of alternatives to road transport, development of articulated programme for road maintenance, adequate funding, education of the people and so on. Recommendation as to how the challenges can be surmounted was put forward in terms of government and all concerned taking note and implementing the strategies pointed out

SOIL RESPONSE TO REFORESTATION IN A PART OF ILORIN, KWARA STATE. NIGERIA

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ABSTRACT

Man's various activities such as farming and wood harvest have direct impact on land. Deforestation is essentially an important phenomenon in ecological relationship between man and spatial environment. Deforestation renders the soil bare thus increasing the surface albedo and making the atmosphere warmer. This paper therefore examines the ecological implications of trees on soils of a part of Ilorin environment and assesses the fertility status of the soil to ascertain its potential for future agricultural production. A total of 16 soil samples were systematically collected from two quadrats 25m x 25m in each on reforested and deforested sites respectively. Standard laboratory techniques were used to test the essential soil parameters that determine the fertility status of soils. Coefficient of variation was used to establish variability or otherwise within the data set. Student 't' test was used to determine the significance of difference of the sample means of forested and deforested soils parameters. The result of the laboratory test revealed that different vegetal cover affects the soils properties. Generally, the physical properties of the soil in this area are homogenous but variations exist in the chemical properties which fundamentally determine soil fertility. At the end the conclusion was that fertility status of the soil improves under forest cover. It is therefore important for the government to provide adequate awareness and educate the people on reforestation of degraded land because land use and soil properties tend to affect each other. Government at local, state and federal levels should intensify effort on afforestation projects in their jurisdiction

WATER SCARCITY: MANAGING SEASONAL WATER CRISIS IN THE URBAN CENTRES OF EKITI STATE, NIGERIA.

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ABSTRACT

This work investigates the causes and consequences of seasonal water scarcity in Ekiti State Nigeria. The study emphasizes the growing demand and competitive use of water in the state. Among others, the objectives of the study are to identify the water resources in the state, examine the sources of water supply to the people and to identify the constraints to uninterrupted water supply. The methodology includes reconnaissance survey, observation, focus group discussions, as well as administration of questionnaire and analysis of data. The study revealed that the provision of water is a panacea for sustainable development. It revealed further that the water resources of Ekiti State are under pressure. Hence, the study recommends the management, governance and monitoring of the water resources. Above all, the study suggests that there should be special consideration for urban slum dwellers, rural folks, women and the physically challenged in water schemes.

Key words: Infrastructure, Water, Facilities, Scarcity, Management.

INDIGENEOUS SOIL CONSERVATION PRACTICES AMONG IRRIGATION FARMERS IN ZARIA URBAN AREA, NORTH CENTRAL NIGERIA.

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Abstract

The study examines the soil conservation methods used in Zaria peri urban area in maintaining soil fertility . A set of structured questionnaires and interview schedules were employed to obtain information from a total of 165 respondents. Samples were obtained by purposeful random technique directed towards farmers practicing irrigation on the Gulma-Kubanni Basin System. Data obtained were summarized by use of simple descriptive statistics that was percentage bias so as to have a good appreciation of farmers' knowledge on the use of soil fertility maintenance measures. Result of analyses showed that majority of farmers use organic substances on farms to improve soil fertility which they attributed to the availability and cheapness of the products. Further investigation revealed that the high cost of inorganic fertilizer and the difficulty in procurement made it an unpopular method as a soil fertility measure, though most farmers were of the view that it produces better result on soil fertility when compared with organic fertilizer. The farmers therefore were able to establish a link between decline in fertility level of soil and decrease in crop yields. The study recommends that there is the need to evolve an integrated cooperative approach to soil fertility maintenance, raise the capacity of the farmers by provision of loans and training, provision of motivational incentives to encourage farmers to engage in soil conservation activities and raise awareness of the farmers of the benefits of agro forestry as a soil fertility maintenance.

EVALUATION OF MODELS FOR ASSESSING GROUNDWATER VULNERABILITY TO POLLUTION

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Abstract

This paper examines, based on a review and synthesis of available material, the presently most applied models for groundwater vulnerability assessment mapping. The approaches and the pros and cons of each methods are evaluated in terms of both the conditions of their implementation and the result obtained. The paper further observed that, with the exception of DRASTIC model, most of these models have not been applied to ground water studies in Nigeria, as it is widely used in other parts of the world. This review therefore bring to limelight the importance of their applicability in groundwater vulnerability mapping in Nigeria.

Key words: Groundwater, Vulnerability, Mapping, Pollution, Nigeria

PEOPLE'S PERCEPTIONS OF GULLY EROSION ISSUES AND ADOPTION OF CONSERVATION MEASURES IN DANGARA AREA, CENTRAL NIGERIA

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ABSTRACT

In Nigeria, very little research has so far been conducted into people's perception of environmental problems. This study aims to contribute to this important area of research by empirically exploring the farmers' perceptions of gully erosion and how it affects crop, settlement development, crop yields, land ownership and values, rural economics and private conservation investments in Dangara area of Nigeria's Federal Capital Territory. It is based on analysis of data collected using questionnaires administered to 346 respondents in the area. The results obtained indicate that (i) the farmers are well aware of gully erosion but less aware of sheet and rill erosion; (ii) the farmers did not fully understand the processes involved in gully erosion; (iii) the respondents' personal traits significantly influence the level of their perception of the problem in the area; (v) only the uneducated among the respondents claimed to largely be unaware of gully problem in the area; (vi) most of the respondents are aware of gully erosion control measures such sand filling, terracing, afforestation, planting of cover crops, grazing control and road construction control but were not adopted them; and (vi) the main control measures they are largely adopting include avoiding cultivating steep slopes, contour ploughing across slope, stopping land measures such as crop rotation, bush burning control, fallowing and strep cropping. These findings suggest that promoting gully control in the area requires that adequate attention be given towards educating the people on the processes of gully development, the values of adopting the measures they are not aware of, and those they were aware of but are not adopting. Since the farmers were not adopting some of the measures they are aware largely due to lack of technical and financial base, there is the need for the development and adoption of strategies that could improve their technical and financial capabilities (i.e. capacity building) to enhance their capability for adopting them. However, efforts to educate the lay public on these issues should not assume the existence of a homogenous community of like-minded people in the area. Finally, it is recommended that the variations in perceptions must be mainstreamed and addressed at the outset of formulation of any policy aimed at comprehensively addressing gully erosion problem in the area.

Key Words: Soil Erosion; Gully Control; Perception; Nigeria; People

WASTE DUMPS AND HEAVY METALS ACCUMULATION IN SOILS AROUND LOKOJA, NIGERIA.

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Abstract

The levels of some heavy metals in the soils around a solid waste dump site and a control site in Lokoja were determined. Soil Samples were collected and analysed for both the top soil and sub soil to determine the lead, copper, cadmium, Zinc and Nickel contents. Lead and cadmium were found to be above the World health Organization (WHO) acceptable threshold particularly in the top soil of the dump site. All other elements were found to be within the acceptable limits. The high concentration of lead and cadmium may pose some human health hazards to the environment. It was suggested that indiscriminate dumping of waste be discouraged while waste sorting is introduced to reduce the build up of heavy metals in the area.

SUSTAINABLE DEVELOPMENT AND MANAGEMENT OF INFRASTRUCTURE FOR EFFECTIVE TRANSFORMATION OF RURAL-NIGERIA: IMPLICATIONS FOR FOOD SECURITY

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ABSTRACT

This paper explored the intricate linkages among rural transformation, adequate provision of reliable rural infrastructure, and agricultural productivity. It examined some issues in sustainable development and management of rural infrastructure. The food security implications of rural transformation through the provision of basic rural infrastructure were highlighted.

Keywords: Sustainable Development (SD), Infrastructure, Rural Transformation (RT), and Food Security(FS).

Drainage Problems in a Tropical Environment: Perspectives on Urban Quality Management

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Abstract

This research effort is an assessment of drainage problems in the tropical environment of Ilorin. Thus, in order to achieve the philosophy of the work, the following data have been sourced from direct fieldwork. Such data include drainage dimensions, types of wastes in drainage channels, problems of wastes and techniques for waste management. These data have been analysed through the application of descriptive statistics and cross tabulations as a basic method of data analysis. The results of the finding include: (a) the dimensions of drainage channels are adequate to permit free flow of water bodies given a good culture of drainage system maintenance. (b) Various types of waste materials but in different proportions have been found to be blocking the drainage channels. (c) the problems of drainage channels ranges from the occurrence of street flooding to environmental deterioration and the splashing of water on other road users: and (d) an obvious method for managing drainage channels is the adoption of environmental education with emphasis on the techniques for drainage channel management.

Keywords: Drainage Problems, Tropical Environment, Urban Quality Management

Climate, flight Delay and Cancellation and the Economic Implications for Nigeria.

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And

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Abstract

The study examined the effect of climate on flight delay and cancellation and its economic implications in Nigeria using Murtala Mohammed Airport as a case study. The study covered the period of ten years which spanned between 1997 and 2007. Secondary data were used. Climate data of rainfall, thunder storm, wind cloud cover and visibility were collected from the archives of Nigeria meteorological Agency Oshodi while information on flight delay and cancellation were sourced from Murtala Mohammed International Airport Lagos. The statistical tools employed were correlation and time series. The result of the correlation analysis showed a weak positive relationship between rainfall, thunder storm, wind and cloudiness and flight cancellation. However a strong positive relationship exists between visibility and flight delay and cancellation. Also, the result of the time series forecast revealed that the period of 2007 – 2011 will witness higher rate of flight delay and cancellation resulted from the above weather variables. The economic implications of the above findings were discussed and suggestions were made on how to reduce such losses.

An Assessment of the Concentration Level of Some Selected Heavy metal Pollutant in Galma River Basin of Zaria.

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Abstract

This study assess the nature and extent of heavy metals present in the Galma River Basin of Zaria. Four (4) water samples were collected from four different points along the Galma river course. This nature, variation and level of concentration of heavy metals were determined to ascertain how safe it is for human consumption. Among many, Chromium, Iron, Copper, Cadmium, Arsenic, Lead, Nickel and Zinc were found dominant. To determine the variation in the sample point, chi square (χ^2) was used to determine the correlation between the observed vales (results) and those of World Health Orgaization (WHO) set standards. The results reveal that there is a significant difference between the concentration levels of heavy metals in the study area. The potential source of these metals and their effects on living systems were also discussed.

SUB – THEME 7

**Food Security, Infrastructure and
Rural Development**

ATTITUDINAL CHANGE: A PANACEA TO FOOD SECURITY AND RURAL DEVELOPMENT IN NIGERIA: A LOOK AT DEKINA LOCAL GOVERNMENT AREA, OF KOGI STATE, NIGERIA.

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ABSTRACT

This study investigated the attitude of Nigerians towards farming/agriculture in Nigeria with particular reference to Dekina Local Government Area (LGA) of Kogi State, Nigeria. A total of 140 respondents were drawn from the three Districts (Dekina, Biraidu and Okura) using simple random sampling. Structured questionnaires were administered to the respondents for data collection. Data collected were analyzed by using descriptive statistics such as frequencies and percentages. The result showed that most (48.6%) of the respondents had secondary education and civil service work (36.4%) was their major occupation. Low societal prestige (71.4%), very difficult to make quick money (70.0%) and poor infrastructural facilities (38.6%) were some of the reasons adduced for their hatred for farming while provision of infrastructure (79.3%), good funding of agricultural sector (78.6%), and full mechanization of agriculture (72.9%) were some of the possible suggestions for making farming enticing.

KEYWORDS: Food Security, Rural development, Rural infrastructures, Biogenic need.

FINANCE: A CONSTRAINT TOWARDS EFFICIENT PRIVATE HOUSING DELIVERY IN NIGERIA (THE CASE OF KANO METROPOLITAN AREA)

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Abstract:

This study examines how finance serves as a constraint toward efficient private housing delivery in Nigeria using Kano metropolitan area as a case study. Finance is very crucial in property development. Without a steady flow of finance, all other factors of property development cannot be assembled. A total of 66 individuals and 6 corporate Respondents were selected via a combination of purposive and snowball sampling techniques. The major findings of the study shows that inadequate access to finance characterizes both the Public and private housing sector and this leads to low private participation in housing provision in the country. Almost all the agencies saddled with the responsibility of providing easy access to housing finance did not live up to expectation. The study concludes by recommending ways to enhance easy access to sources of finance to private property developers so that they could effectively contribute their own quota in housing delivery in the nation.

THE IMPORTANCE OF RURAL INFRASTRUCTURE TO THE ATTAINMENT OF FOOD SECURITY IN NIGERIA

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Abstract

The rural areas of Nigeria are inhabited by the bulk of the nation's population; they serve as the base for the production of food and fibre. They are also the major sources of capital formation for the country, and a principal market for domestic manufactured goods. Although there are many factors determining food security, it is important to highlight the relationship between rural infrastructure and food security in Nigeria especially in our rural areas where the poor state of infrastructure has led to mass exodus of young and able bodied men and women to the urban areas, resulting in lost of labour required for agricultural activities and food production. This has resulted into a complex problem of low food production, food insufficiency, food importation and food insecurity. Food security depends on livelihood security that, in turn depends on many factors, including social, economic and environmental determinants. This paper examines household food security from rural infrastructure perspective for a developing country like Nigeria where food insecurity is becoming a stress to rural and urban livelihoods. It emphasized the need to provide more infrastructures in our rural areas where greater percentage of our population reside so as to overcome the current problem of food insecurity in the country.

FOOD SECURITY, INFRASTRUCTURES AND RURAL DEVELOPMENT NEXUS.

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and

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ABSTRACT

This paper tries to generally explore the nexus between the food security, and infrastructure and rural development. In many parts of the world today especially in developing countries including Africa and Nigeria, food insecurity, inadequate infrastructural development and rural under-development are amongst the most crucial and persistent problems facing humanity. An adequate rural infrastructure is important for enhancing rural development and consequently agriculture. Similarly, the state of agriculture will affect food security either positively or negatively. This paper therefore analyses food security and issues that stem from it in sub-Saharan Africa in general and Nigeria in particular as well as the relationship that exist and link food security, infrastructure and rural development. It concludes that, since adequate infrastructure is imperative to boost agriculture productivity, which all things being equal will ensure food security, policies should therefore be put in place and be implemented by the government to boost these key aspects so as to facilitate and enhance food security of its citizenry.

Agricultural Production, Food and Nutrition Security in Rural Benin

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Abstract

Although agriculture is the major economic activity in rural areas, its inhabitants are the most vulnerable to food and nutrition insecurity. Therefore, any efforts aimed at minimizing food and nutrition insecurity must start from rural areas. This study examines agricultural production, food and nutrition security in rural areas of Benin City, Edo State, highlighting the major constraints. The study reveals that although 60% of respondents are engaged in agriculture, their access to food and nutrition is insecure due in part to unstable incomes and seasonality of harvest and inadequate health and sanitary conditions. Also, lack of storage facilities in these rural communities have increased post-harvest losses and has reduced farmers/household incomes thereby worsening their food insecurity situation. The study also found that rural-urban migration that results in shortage of manpower for agricultural activities is a major reason for decline in agricultural production in the last five years in the sampled communities. The study recommends that there should be considerable and sustained government investment in agriculture and the provision of basic facilities to support education, health care, sanitation and safe drinking water supply to ensure food and nutrition security and curtail rural –urban migration in these communities.

Infrastructure and Rural Development: A Panacea for Achieving Food Security in Kura, Kano State

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Abstract

This paper present a framework for understanding the relationship between infrastructure and food production in rural areas and the development of such infrastructure between 1980 to date it recognises that rural areas are not attractive to live because no infrastructure that will improves the quality of life. The paper looked back at the previous administrations efforts towards ensuring that food is available but all these laudable ideas remained a dream. Method adopted for this study was basically surveys and interview. The concept of food security infrastructure and rural development were also discussed as well as the food security continuum. Finally, the strategies for achieving food security were recommended.

Keywords: Rural, development, security, food and infrastructure

An Assessment of the effects of On Site Selection for the Cultivation of Ginger in Kaduna State.

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Abstract

The study focus on assessment of the feasibility of site selection for ginger (*Zingiber officinale rose*) production in the study area. World's demand for ginger production is on the increase in view of its various uses both locally and internationally. The methodology used for this study includes field observation, non participant observatory techniques and interview. Also, remotely sensed data, GIS and ground positioning system (GPS) were applied for subsequent analysis. The results of the research show that there are a number of potential areas for ginger production in the study area especially in the Southern part of the state. In view of its numerous uses, there is an urgent need for all the stakeholders to come to the aid of ginger production by investing more in the area of research and inputs so that the target can be achieved.

SUB – THEME 8

Gender Issues

GENDER AND INTRA-URBAN TRANSPORT IN SABON-GARI AREA OF ZARIA, KADUNA STATE.

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Abstract

Gender roles play out in any spatial context, and can thus be expected to vary across the urban landscape. The development of any area can not be considered fair and equitable unless the issue of gender is taken into consideration. This study seeks to examine the relationship between gender and intra-urban transport in Sabon-Gari area of Zaria. Data for this study was obtained through the administration of questionnaire to respondents sampled systematically in six major streets of the study area. Pearson Chi-square and phi test were used for the analyses. The results shows that the relationship between gender and intra-urban mode choice is statistically significant with a strong strength of association, $\Phi = 0.542$. The implication of this result is that if the country is to emerge as a viable and modern society, equity and fairness should be assured in the provision of transport services so that gendered variation in transport needs are taken into consideration.

GENDER CONSTRAINTS WHICH LEAD TO WOMEN'S DISADVANTAGE IN ACCESSING THE MATERIAL AND NON-MATERIAL RESOURCES OF CONTEMPORARY NIGERIAN SOCIETY

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Abstract

This paper highlights the gender gaps in contemporary Nigerian society, and discusses the constraints and underlying attitudes which determine women's disadvantaged position. As new resources, opportunities and structures are introduced in the course of development in Nigeria, gender differentials are becoming apparent. Underlying assumptions about gender and power relations dictate the way in which new resources are allocated. New and modern inputs are generally accepted to be a "male" domain. In formal education, girls are under-represented at all levels, with the gender gap widening as the level of education rises. This directly affects women's position in the labour market, with fewer women than men in professional and leadership positions. Women form a minority in the new wage labour sector, but a majority of market traders. Following the most recent national election in 2007, women ministers were appointed, but only eight of the 122 members of the National Assembly are women. This means that women have very little say in the creation of the rules, regulations and policies that affect their lives. This paper provides an overview of current issues for gender and development in Nigeria, drawing together key issues from literature and research, and reviewing the latest statistics. Issues are presented under education. Gender gaps revealed in the most recent statistics are highlighted, together with an analysis of the gender constraints which lead to women's disadvantage in accessing the material and non-material resources of contemporary Nigerian society. The paper is intended as a basis for further analysis, discussion and research.

**CONSTRAINTS TO WOMEN`S PARICIPATION IN
AGRICULTURAL ACTIVITIES IN GIWA LOCAL GOVERNMENT
AREA OF KADUNA STATE, NIGERIA.**

K, Olaoluwa and R.O. Yusuf.

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Absract

This paper addresses the constraints faced by rural women towards participating in agriculture. To achieve the aim and objectives data were collected from 220 women through questionnaire survey of 11 districts. To analyze the data collected, descriptive statistics such as table, averages and percentages were employed while chi square test was used to test the hypothesis. From the results, 77.3% of the respondents were married, 49.55% were non-literate and all of them participate in agriculture though 70% of practiced on a subsistence basis. About 95.91 % think they were not producing at their maximum potential while 83.64% encountered hindrances to productive farming. Financial constraints and gender-related constraints were the major bottlenecks with 33.18% and 87.27% response. From these results it is concluded that women rural women in Giwa Local Government Area face serious constraints to productive agricultural enterprise which affect their output. A major recommendation is that women-focused rural institutional infrastructure should be vigorously pursued to empower rural women.

Key words: constraints, women agriculture, rural area, Giwa LGA.

MATERNAL MORTALITY LEVELS AND DIFFERENTIALS IN KADUNA METROPOLIS

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ABSTRACT

The study is aimed at assessing maternal mortality levels and differentials in Kaduna metropolis. The tool adopted is Reproductive Age Mortality Survey (RAMOS) which is characterized by multiple sources of data using medical records, administration of questionnaires to the health care providers and women of reproductive age. A sample of 277 maternal deaths was obtained from the medical record using a period of 5 years. A sample size of 384 was adopted for the household survey, 347 were recovered after the field survey and out of these 165 of the respondents had history of maternal deaths. A total of 20 healthcare providers responded to the hospital questionnaires. The medical record reviewed maternal mortality ratio of 729/100,000 livebirths. The six direct leading causes of maternal death are Eclampsia (37.0%), Sepsis (22.8%), Haemorrhage (15.2%), Ruptured uterus (14.1%), Obstructed labour (6.5%) and Unsafe abortion (4.3%), while the ten indirect cause are HIV/AIDS (31.3%), Anaemia (28.1%), Gastro-enteritis (9.4%), Malaria (6.3%), Cardiac-failure (6.3%), Sickle-cell anaemia (6.3%), Hepatitis (3.1%), Diabetes (3.1%), Meningitis (3.1%) and Pelvic-inflammatory diseases (3.1%). Differentials of maternal mortality include a variety of interplaying social, demographic, economic, and cultural factors, which operate at various levels. In the demographic differentials, married women had the highest maternal deaths cases. primiparae and Grandmultiparous women were worst hit by maternal deaths, women with little or no western education were mostly affected, women within age 15-24 and 35-49 years were most affected, women without antenatal attendance (unbooked) have higher maternal mortality ratio and women without history of still birth were twice affected than women with such history. Hausa-Fulani tribes were worst hit and women who practice Islamic religion. The health care providers graded traditional practices underlying maternal mortality by their order of ranking; early marriage (1st), female genital mutilation (2nd), hot bath (3rd), food taboo (4th) and potash drink (5th). Decision for Emergency Obstetric Care (EmOC) is usually made by the husband of the woman at risk of maternal death. Although all women are at risk of maternal death but in the economic differentials housewives were worst hit and women who are economically disadvantaged. The reality is that to achieve a sustainable reduction in maternal mortality ratio substantial improvement would be needed in Kaduna metropolis. Health education programmes to sensitization stakeholders by create awareness on the increase in the rate of maternal mortality and how it can be prevented, discouraging early marriage, encourage antenatal and postnatal care, family planning and to also discourage harmful traditional practices. There is need for Provision of skilled attendants and efficient Emergency obstetric Care (EmOC).

WOMEN IN FOOD CHAIN ACTIVITIES AND NUTRITION IN NASARAWA STATE: IMPLICATIONS FOR RURAL DEVELOPMENT

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ABSTRACT

The nutritional well-being of households of developing countries depends on the work and decisions around numerous food-related activities that are carried out by women. The purpose of this study was to determine women's participation in food chain activities and its implications for rural development. The study was carried out in Nasarawa North Senatorial Zone of Nasarawa state. Three hundred questionnaires were administered to respondents who were randomly selected from the three local government areas that make up the senatorial zone. Results of the study showed the women in the area were responsible for many activities in the food chain which include planting, harvesting, weeding, marketing and transportation of farm produce. Women were also involved in post-harvest activities such as milling, parboiling, peeling, pounding, threshing and grinding. Other activities were slicing of okro, picking of palm fruits and melon and crushing of palm kernels, smoking, salting, stocking of grains and storage barns were the main storage methods. This study also revealed that most of the women travelled a long distance of at least one kilometer or more to and from their sources of drinking water. Firewood and kerosene stoves were the most important sources of energy. Field observation also revealed that the responsibility for nutrition and health care of the family members, particularly children lies with the women. Constraints to the food chain activities were inadequate time for farming, too much involvement in domestic activities, pregnancy; child-bearing, poor financial resources, poor transport and storage facilities. Implications of the study for rural development were identified and articulated for policy formulation and implementation.

KEYWORDS: Food chain activities, women, nutrition and development.

GENDER DISCRIMINATION IN HEALTH CARE IN ZUBA DISTRICT, FCT ABUJA: IMPLICATIONS FOR THE QUALITY OF LIFE

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Abstract

The study seeks to find out the reasons for gender discrimination in health care service provision having established that gender discrimination exists in the area. The paper also examines the implications and the impact of this discrimination on the quality of life in the area. The instrument used to generate data for the study was the questionnaire two hundred questionnaire copies were administered by the researchers with the help of the research assistant. The data generated were analyzed using the mean and standard deviation, while the hypothesis was tested with student, t-test. It was discovered that women are discriminated in all facets of life in the area, including health care service provision and this has affected their productivity and is also responsible for high female mortality. There is need for public education on the importance of gender equity in the area.

GENDER DISPARITY IN THE ALLOCATION AND OWNERSHIP OF LAND RESOURCES IN RURAL AREAS OF KANO AND JIGAWA STATES

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Abstract

This paper examined gender disparity in the allocation and ownership of land in rural areas of Kano and Jigawa States. Data for the study was obtained through questionnaire administered to four villages across four local government areas through a stratified random sampling, through this method a total of 25 males and 25 females were selected in each village giving a grand total 200 samples selected for the study. The author sought to analyse the gender disparity in the allocation and ownership of land resources. The findings of this research revealed a great disparity in the allocation and ownership of land resources in the rural areas which was in favour of the male gender to the detriment of the female gender. This has been attributed to the land tenural system and the patriarchal system which gave the male gender an edge over the female gender despite the contribution of women towards the production system in form of labour input in agricultural production. The contributions of females, at home or in the field, are always subsumed under females unpaid reproductive roles. The conclusion of this research is that women are discriminated against in the allocation and ownership of land resources. A resource which if owned by the female gender could help to straighten their economic base and thus their contribution to the family and the society at large. It is therefore the recommendation of this paper that land resources be made accessible to the female gender and that they should be involved in the decisions that plan and implement allocation of land resources.

**EFFECTS OF GENDER AND SCHOOL TYPE ON THE
RELATIONSHIP BETWEEN STUDENTS' ATTITUDE TO
GEOGRAPHY & THEIR ACHIEVEMENT
IN GEOGRAPHY.**

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ABSTRACT

The present study deals with the effects of gender and school type on the relationship between students' attitudes to geography and their achievements in Geography. The instruments used for the study were Geography-related Attitude Scale and a (30-item multiple choice) Geography Achievement Test (GAT). The former was an adaptation from that of Fraser (1981). Both instruments were validated by experts in Geography and Geography education. Their reliability coefficients (test-retest method) were 0.87 and 0.85 respectively. The null hypotheses tested were (i) there was no significant effect of gender on the relationship between students' attitudes to geography and their achievement in Geography, and (ii) there was no significant effect of school type on the relationship between students' attitudes to Geography and their achievement in Geography. To test the hypothesis, four secondary schools offering geography were randomly selected in Ondo town, Ondo State in Nigeria. Senior Secondary II students of each selected school were used for the study. Treatment lasted for four weeks in each school and the GAT and Attitude Scale were administered by the investigator at the end of the treatment. Data gathered were analyzed using Pearson's correlation and t-test. Each null hypothesis was accepted at the 0.05 level. That is, the significant relationship between students' attitudes to geography and their achievement in geography is independent of gender and school type.

SUB – THEME 9

Security Issues and Infrastructural Development

THE MILITARY INVASION OF ZAKI-BIAM: ANALYSIS OF ITS IMPACT ON OCCUPATION AND POPULATION

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ABSTRACT

In 2001, the Nigerian Army invaded and sacked Zaki-Biam among other settlements in Benue State killing thousands and destroying properties worth millions. This study attempted a *post-mortem* analysis of the invasion 8 years after. A questionnaire was administered to 217 out of which 206 were duly completed and returned. The data was analyzed with the aim to reveal the impact that the military invasion had on the social and economic fabric of the town and its population. It was discovered that, in addition to the crumbling of economic activities in Zaki-Biam, the military invasion caused the outward movement of many people who lost property and loved ones during the incidence. These have negatively impacted the town. The study proffered several recommendations to avert re-occurrence of this unfortunate incidence in the study area and indeed elsewhere in the future.

Keywords: Conflict, Military Invasion, Impact, Occupational Changes, Population Mobility, Zaki-Biam

SUB – THEME 10

**Geo-Spatial Database and
Infrastructural Development**

THE APPLICATION OF *MAPICS* SOFTWARE IN MAPPING GENERAL WELFARE FACILITIES AND SERVICES IN THE RURAL AREAS OF THE JOS PLATEAU: A RETROSPECTIVE ANALYSIS.

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Abstract.

Computer mapping, and by implication the Geographical Information Systems (GIS) have become the 'in thing' in geography today. This paper has retrospectively analyzed the application of *MAPICS* software in mapping the general welfare facilities and services in the rural areas of the Jos Plateau which was carried out over a decade ago. A total of 18 indicators were used to find out the range of other general welfare facilities and services available in a community. To complete the whole process of mapping the general welfare facilities and services in the rural areas of the Jos Plateau, other softwares were employed to complement *MAPICS*.

GEOINFORMATION AND ROAD TRANSPORT INFRASTRUCTURE DEVELOPMENT IN NIGERIA

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ABSTRACT

Road network is an infrastructure that is essential to the generation of economic growth and development in modern economies. The extent to which a nation's land mass is covered by road network is an index of the degree of mobility of people, goods and services within the country. Road construction and maintenance is a regular annual expenditure in nation's budget with no significant impact on the sustainable development of economy as most roads in country remain in a state of despair. Detailed information about road network, volume of traffic, length of roads, accident rate, etc is a prerequisite for effective development of road network infrastructure in Nigeria. The application of geoinformation in the management of road transport infrastructure is one possible area that has the potential to support the required data for effective development of road transport infrastructure. This paper therefore reviews: the state of road transportation in Nigeria; the efforts of Federal Government of Nigeria at developing geoinformation, and the benefits of geoinformation in effective provision and management of road infrastructure in the country. The study concludes that to advance the use of the tools of geoinformation (Remote Sensing and GIS), it is important that different stakeholders in the provision and management of road infrastructure employ geospatial information as means of enhancing their operations. The creation of a Road Infrastructure Geoinformation Unit (RIGU) within [Federal Roads Maintenance Agency](#) (FERMA), states and local governments' ministries and departments dealing with road development and maintenance is recommended as a way towards sustainable development of road infrastructure in the country .

Keywords: Road Infrastructure, Geoinformation, Remote Sensing and Geographic Information System.

Remote Sensing and GIS Applications in Assessing Changes in Land Use in Barkin-Ladi of Plateau State

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ABSTRACT

This study exploits the use of remote sensing data with the objective of defining land use changes over time in Barkin-Ladi Local Government Area of Plateau State. A supervised classification of satellite images of three years (1975 Landsat MSS, 1978 Landsat TM and 2006 NigeriaSat-1) were used for study in accessing land use categories of the study area. Six major land use types were considered (Bareland, Built-up areas, cultivated land, natural vegetation, rock outcrop and water body). The aim was to determine the magnitude and rate of change in land uses during the last 29 years and to find out what caused the changes. The study established that cultivated land had a 900.3% change between 1975 and 1987 due to population growth, favourable soil, climatic conditions, good and ready market for farm proceeds. Built up areas also had a 44.3% change due to population increase, cultural and physical factors, than other land use types. Recommendations were made to further study these changes in the area and put them to good government policy making decisions.

Keywords: Barkin-Ladi, Landsat MSS, Landsat TM, NigeriaSat-1, Land use, Remote Sensing

THE IMPERATIVE OF GIS- BASED GEO-SPATIAL DATABASE INFRASTRUCTURE FOR INFRASTRUCTURAL DEVELOPMENT AND MAINTENANCE IN KADUNA STATE

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ABSTRACT

Geographic information is very vital for the sustainable development of any Nation since every event takes place in space. Spatial Data Infrastructure (SDI) makes it possible to collect, process, store, distribute and improve utilization of geospatial data. The capability of Geographic Information System (GIS) to merge data from various sources and quickly process them to produce information in real-time makes it an essential tool for the development and implementation of SDI. The development and equitable distribution of infrastructural facilities in Kaduna State can only be realized through the adoption of SDI. This work investigates the importance of GIS-based Geospatial Data Infrastructure for the development and maintenance of infrastructural facilities in Kaduna State. Face-to-face oral interview with the staff of Kaduna State Survey Department of the Ministry of Lands and Surveys using an interview guide as well as personal observation were used to acquire the primary data for the research. The result reveals that: the available spatial data are obsolete due to difficulty in up-dating because they are in analog format; the storage of these data is also very difficult thereby, making them are prone to wear and tear due to weather conditions and mal-handling; It was also discovered that the State is yet to establish GSDI however, the State government has commenced the mapping of the entire State. This research recommends establishment of an Agency at all government levels to coordinate the activities of SDI; the use of geographic information for equitable spatial distribution of infrastructure in the State; all thematic data in the state should be collated, processed, stored and made accessible using GIS-based GSDI and finally, the organization of education and training programmes to develop the required technical and management skills for development and implementation of the SGSDI.

Key Words: Infrastructural development; Geospatial Database Infrastructure; Geographic Information Systems (GIS)

THE IMPACT OF SPATIAL DISTRIBUTION OF SOLID WASTE DUMPS ON INFRASTRUCTURES IN SAMARU, ZARIA USING GEOGRAPHIC INFORMATION SYSTEMS (GIS)

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ABSTRACT

The volume of solid waste increases with population growth making it difficult to manage and consequently, the proliferation of dumps in Nigerian cities. Inadequate waste management strategies could be responsible for the outbreak of diseases, flooding and erosion as well as deterioration of aesthetic value of the urban areas. This work dwells on analyzing the impact of the spatial distribution of solid waste dumps on infrastructural facilities in Samaru. The primary data sources were GPS survey, Satellite imagery of Zaria captured by Ikonos in 2008 and personal observation. seven major dumpsites were identified. The dumps were situated on drainages, transport networks, in and around school premises as well as adjacent to residential buildings. The implication of such distribution include obstruction of free flow of water and traffic; pollution of air, surface and ground water as well as breeding of pests and rodents which transmit disease like malaria, cholera and typhoid fever as well as destruction of the aesthetic value of the area. The study recommends the following: the use of Remote Sensing and GIS for proper planning and monitoring of protected dumps which would be away from infrastructural facilities; adoption of the Integrated Waste Management (IWM) approach which involves reduce, reuse and recycle; education and sensitization of people and the establishment of sanitation monitoring team to inspect the environment regularly and prosecute offenders.

Key words: solid waste dumps; Geographic Information Systems; Infrastructure; waste management

UPDATING THE LANDUSE MAP OF SOKOTO METROPOLIS USING QUICKBIRD SATELLITE DATA

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Abstract

The land use map for Sokoto has not been reviewed for about 24 years (beginning from 1985 to date). While updating land use map is quite a demanding exercise, its importance to city development planning can not be over emphasized. This study therefore reviews the land use map within Arcview 3.2a and Idrisi Andes GIS environments using a combination of georeferenced 0.5m resolution quick-bird image of 2003, land use map of 1985 and Ground Truth data captured with a GPS hand-held receiver. Land uses were digitized into themes and overlaid for upgrading from 1985 to 2003. Results showed that there were 11 major land use types and that the city grew from 104.2 to 254.6 square kilometres from 1985 to 2003, annexing most surrounding villages. Also, growth was omnidirectional and patterned along routes. It was concluded that attention was not paid to updating and utilisation of land use map by the government, its concerned agencies or land developers. It is therefore recommended that all stakeholders show concern towards updating and utilizing the land use map and that such exercise is better done in the GIS/ LIS environment. As the landscape is rapidly changing, most current satellite data were also recommended to capture the current developments.

APPLICATION OF GEOGRAPHIC INFORMATION SYSTEMS (GIS) AND REMOTE SENSING (RS) TECHNOLOGY TO PUBLIC HEALTH MANAGEMENT: THE NIGERIA EXPERIENCE.

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ABSTRACT

This paper advocate for an effective and efficient application of Geographic information Systems and Remote Sensing to public health management in Nigeria, this because limited research works had been done with respect to its application to health in Nigeria. Public health management needs information on various aspects like the prevalence of diseases, facilities that are available in order to take decision on either creating infrastructural facilities or for taking immediate action to handle the situation. These decisions need to be taken based on the observations made and available data. As the data relates to public health covering the whole country and the entire population with only Nine (9) states used as case study, the data is voluminous, and hence needs a to be presented in a way that the temporal and spatial nature of the problem can be brought out in a focused way. Furthermore, this research will guides practitioners/experts, government, NGOs, health resource personnel through the necessary framework and techniques needed to plan, design and implement GIS/RS as a technological infrastructure within a health organization. It demonstrated the approach to developing strategy and provides practical guidance on successful implementation of GIS project. The research used data techniques of data collection that includes observation, oral interview, desk research, and questionnaire in the areas of study that are collected and fielded into the GIS systems for analysis using ARCVIEW 3.2b and MisrosoftACCESS software. Result obtained from the analysis of this study show that little is known about GIS as vital tool for sustainable health management in Nigeria and Nigeria do not have high resource personnel in the health sector to use the GIS hardware and software but can be useful decision supporting tool in formulating, implementing and monitoring health schemes in more realistic setting. This paper has also provided a way forward for mobilizing the health sector towards embracing GIS technology. Most publication on GIS focuses on its mechanic, technology, and it specified applications. This much-needed paper, however, envisages GIS implementation from a management and organizational perspective.

KEY WORDS: GIS, RS, Public Health Management, Strategy, Implementation, Infrastructure, Disease, Decision-making, Practitioners.

Geospatial Data Infrastructure Problems and Development in Sub-Saharan Africa.

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Abstract

The process of acquiring quality data for Geoinformatics processes requires a combination of efficient personnel and state-of-art Geospatial equipment. The purpose of any Geospatial research work is to provide information which will assist in quick decision making and effective management. For this reasons, effort is now in place to assess in quality of the data acquisition and derived information products in Sub-Saharan African. Meanwhile, in spite of these, there is no such thing as an "exact" measurement, all measurements being estimate of the true 'point' value. Many data, especially, rainfall data therefore contain some degree of error and the extent of data accuracy or precision can only be specified in relative terms. Data acquisition using some old equipment available in Sub-Saharan African are sample in space and time which are subject to various errors, notably; observer error and instrumental error. The major aim of this paper therefore is to depict Geospatial quality data acquisition problems in Sub-Saharan African. Generally, the objectives of this paper is to: (1) examine the various aspects of spatial data acquisition problems in Sub-Saharan African.; (2) discuss recent development in Geospatial data acquisition in Sub-Saharan African.; and (3) explain the concept of metadata in data acquisition reform in Sub-Saharan African. Rainfall data acquisition was used as a case study for this region which was part of findings from our resent research work. It was observed that some organizations and research institution are still employing traditional means of data acquisition despite the recent innovation in Geoinformatics and Remote Sensing field.

Key Words: Geospatial Data, GIS data acquisition, Data quality problems, Rainfall Data, Sub-Saharan African

THE EFFECT OF GLOBAL SYSTEM MOBILE COMMUNICATION CELL PHONES ON TELECOMMUNICATION NETWORK USING GEOGRAPHIC INFORMATION SYSTEMS (GIS) TECHNIQUES

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ABSTRACT

This paper seeks to determine whether the use of different cell phones affect the signal strength of GSM operator's network. The study area, Shomolu LGA of Lagos state is used for the exercise. The author employs Geographic Information techniques such as scanning, georeferencing and digitizing to achieve his aim. The data obtain is analyzed using Analysis of Variance (ANOVA) two way test. The result of the analysis shows that the use of different cell phones by subscribers has substantial effect on the signal strength of GSM operator's network.

THE USE OF MAP IN THE PLANNING AND DECISION MAKING PROCESS IN URBAN AND REGIONAL DEVELOPMENT

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ABSTRACT

Attempts have been made in this paper to demonstrate the use of map in the planning and decision-making process in urban and regional development. Various types of maps such as general purpose maps (for example, topographical maps) and thematic or special purpose maps (for example, population density map, soil map, land – use maps etc), which are useful in the planning process were explained. The usefulness of maps in showing the locations and the spatial distribution and characteristics of the relevant human and natural resources in the planning process were highlighted, such as population distribution, location and distribution of social amenities (e.g road)e.t.c. In the planning procedure; such as problem definition, solution generation, solution analysis, implementation and feedback, the role of map in various stages were discussed. However, the various limitations to the use of map were also discussed, as map is said to be a representation of reality and not the reality itself. Hence the need to combine the use of map and fieldwork to achieve a better decision. It is therefore, concluded that map is an essential tool in planning, and should be adjusted to satisfy the requirement of the planner. Also for any effective planning, the planners should be skilled and experience in map reading.

Keywords: Land-use, Intervisibility, Physiographic, Generalization, Horizon

SUB – THEME 11

**Recreational/Tourism Infrastructural
Development and Management**

RURAL TOURISM DEVELOPMENT: AN ALTERNATIVE TO RURAL TRANSFORMATION IN NIGERIA

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Abstract

Despite her abundant resources and oil wealth, poverty has remained widespread in Nigeria. Rural infrastructure in the country has long been neglected, while investments in health, education and water supply have largely been concentrated in the cities. About 90 per cent of the country's food is produced by small-scale farmers, who subsist on cultivating tiny plots, and depend on rainfall rather than irrigation systems. Rural development and transformation effort has pre-occupied the attention of successive governments in Nigeria over the years. This is clearly demonstrated by the various rural development programmes and schemes established by successive governments which centres most on agricultural development and rural infrastructural provision. Despite all the efforts and resources committed to these programmes/schemes, they have met with little success while the rural areas continue to battle with very poor and delapidated infrastructural facilities, low crop yield, rural urban migration etc. This development has continued to worsen the condition of rural areas in Nigeria, thereby suggesting the need for alternative strategy to rural development and transformation in the country. The objective of this paper is to examine the prospect of rural tourism as an alternative to the attainment of the much desired rural development in the country.

Developing the Recreational Potentials of the Niger/Benue Confluence; A focus on Lokoja town.

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Abstract.

Recreation is an age long activity that has contributed to the well being of mankind. Recreation have gone beyond land to include water bodies and their surroundings. This why major water bodies and the beaches have become a major source of recreation. This paper brings out the recreational potentials of the Niger/Benue confluence with a focus on Lokoja town. The SWOT technique was used in assessing the recreational potentials of the confluence. Data for this paper was gotten through structured interview with relevant authorities, direct field survey and observation. The study revealed that the confluence posses great recreational potentials that could be developed for a wide range of activities for all classes of people. These potential could also be a tool for achieving the millennium development goals, particularly on poverty reduction, however these potentials have been neglected and overlooked, resulting in the use of the confluence for other activities and very minimal recreation. It is therefore recommended that there is a need for government to to be committed by providing infrastructure and other incentives to attract private sector participation the development of these potentials which will boost the social and economic development of the town.

MANAGEMENT OF TOURISM IN A CONSERVED AREA: CASE STUDY OF YANKARI GAME RESERVE, BAUCHI STATE.

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ABSTRACT

Conservation of resources has been observed to be a way of achieving sustainable development and tourism industry could benefit resources conservation. However, how tourism is managed in a conserved area is not well understood in Yankari Game Reserve Bauchi State. Data gathered through primary and secondary means and percentages, tabulation were used to analyze the data. Analysis of data reveals there is a tremendous expansion of tourism facilities in the reserve which has reduced the area for wildlife being conserved. Another finding is that waste materials from refreshment consumed by tourists are being disposed indiscriminately which constitute harm and barrier to wellbeing of the conserved wildlife. A major conclusion based on the findings is that tourism management in Yankari Game Reserve is unfavourable to resources conservation. Recommendations made in order to give more priority to wildlife rather than needs of tourists includes: reduction in the spade of infrastructural development around Wikki camp, educating tourists on proper waste disposal.

RECREATIONAL INFRASTRUCTURAL DEVELOPMENT IN OLD OYO NATIONAL PARK

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Abstract

National Parks are natural ecosystem with unique attributes classified in the highest category of protected areas. One of the objectives of National parks is that visitors are allowed to enter, under special conditions for inspirational, educational, cultural and recreational purposes. Given this objective of National Parks, the study used participatory approach involving interviews/discussions and visual observation to generate first hand information on the condition and availability of recreational infrastructural facilities in Old Oyo National Park (OONP). It is evident from the study findings and discussions that many indicators of recreational infrastructural facilities are either completely lacking or grossly inadequate in the Park. Thus, the study suggested an integrated approach that allows public- private partnership for ensuring the provision and development of recreational infrastructural facilities in OONP and other National parks in Nigeria.

SUB – THEME 13

High School Geography

KNOWLEDGE AND AWARENESS OF HIV/AIDS AMONG SOME SENIOR SECONDARY SCHOOL STUDENTS IN KATSINA, NIGERIA

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ABSTRACT

A cross sectional study to determine the knowledge and awareness of HIV/AIDS among some senior secondary school students was undertaken in Katsina, Katsina State, Nigeria. The purpose of this study was to provide preliminary data on HIV/AIDS knowledge and awareness among young people in Katsina. A 26 item, English-language questionnaire was pilot-tested and administered to a sample of 120 students across 6 selected secondary schools, namely: Women Teachers College (WTC), Day Sahara D/S), Government Secondary School kofar Yandaka (K/Y), Government College Katsina (GCK), Kiddies International School (KIDs), and Ulal Albab Science Secondary School (ULAL). The questionnaires were coded and analyzed using the SPSS software. The data was then subjected to simple descriptive statistical analysis. There were fairly distributions in the number of male and female respondents, 86% aged 16-20years. Also 96% known what HIV/AIDS is but only 52.5% believed that HIV/AIDS has cure. There was also high awareness of the fact that the disease can kill (96%). Television (71%), poster (66.6%), radio (66%), and public lectures (60%) were the major source of information on HIV/AIDS. There was a very good positive attitude on the studies secondary school students towards those infected with HIV/AIDS as only 15% and 18% says that they would drive them away and boycott them respectively.

Key words: Knowledge, Awareness, HIV/AIDS, Secondary School Students.

AN EVALUATION OF THE PERFORMANCES OF SECONDARY SCHOOL STUDENTS IN PHYSICAL AND HUMAN GEOGRAPHY: A CASE STUDY OF SOME SELECTED SECONDARY SCHOOLS IN ABUJA, FCT.

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ABSTRACT

This study evaluated the performances of students in physical and human geography in four selected schools in Abuja FCT. It examined the perception of both the teachers and students in the two aspects of geography, availability of teaching facilities and materials and the performances of the students in the test exams. A total of 60 SSII students were randomly selected from the four schools. The instruments used to collect data were the inventory, questionnaire and tests questions. The test questions were standard question set from the secondary school geography syllabus and WAEC past exam questions. Percentages, tables, frequencies and charts were used to analyze the data. The findings show that the students preferred and performed better in human geography compared with the physical aspect. Teaching facilities and materials were inadequate in most of the schools as well as the number of geography teachers. The teachers however had a positive disposition on the two aspects of geography of interest to this study. Based on the findings, recommendations were made which include the recruitment of more geography teachers, teaching facilities and materials should be provided while also making efforts to ensure that physical geography is made more realistic, interesting, attractive and simple.

INCULCATING SPACE SCIENCE EDUCATION INTO THE SECONDARY SCHOOL CURRICULUM

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ABSTRACT

The goal of the nations of the world is to end hunger and poverty through sustainable development and environmental management. Space science and technology is a veritable tool in this direction because it helps in the efficient monitoring and use of natural resources. The Nigerian Space Policy and the National Policy on Education have a common goal in enhancing sustainable economic development and empowerment of the individual against hunger and starvation. Effective space and technology development in Nigeria will require inculcating the study of space science and technology into the secondary school curriculum.

Key Words: Space, Science, technology, education, curriculum, sustainable development

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AND THE NIGERIAN SECONDARY SCHOOL SYSTEM: THE GEOGRAPHIC PERSPECTIVE.

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ABSTRACT

The focus of this paper examined the problems in the teaching and learning of information and communication Technology (ICT) and its application to geography in Nigerian Secondary school system. The utilization of the computer technology for learning and instruction in the nation's secondary school (private and public) still remain isolated experiences prevalent only among affluent private secondary schools and selected Federal and States secondary school. Many of our teachers either do not know how a computer works or have not operated one before. This inability raises a fundamental question. How computer literate are the Nigerian secondary school teachers and students. Questionnaire were administered to all geography teachers, other teachers as well as 30 students in some sampled secondary schools in Kaduna state. Percentages, tables, frequencies and statistical parameters were used to analyze the data. The findings of this study show that only few teachers and students can make use of the computer system and the internet resource system. There are inadequate computer based facilities and instructional materials and teaching methods in High schools in Nigeria. The paper therefore recommended among others an increasing in funding as relates to computer/ICT Education, in order to incorporate computer education in our teacher educational programmes in all over tertiary institutions, geography in particular. Such integration will go a long way to prepare students and teachers for the use of ICT technologies. Conclusively, effort has also been made by the researcher to expand on the national policy of computer education in Nigeria and issues on policy formulation, implementation and practice were raised. Adequate ICT Based instructional materials and qualified teachings for the High schools.

Key words= computer system, ICT, Learning, Teaching, GIS, Geography.

STUDENTS PERCEPTION OF GEOGRAPHY AS A SUBJECT IN SOME SELECTED SECONDARY SCHOOLS IN ZARIA.

YAKUBU, S. (PhD) AND ABDULKARIM, B. (MRS)

ABSTRACT:

Geography is a core subject at senior secondary school. It is both science and social science subject. It studies the earth; the description of human or cultural phenomenon. Its content in secondary school are compressed into map reading, physical, human and regional geography. This study therefore assessed students' perception of geography in six selected secondary schools across Zaria. The area covered is: the nature of geography, the scope of the syllabus, the content and the existing geographic facilities and materials. These were used to form the sub-sections. 240 structured questionnaires were designed for the SS3 students of the selected schools. Tabulation, Frequency and Percentage were used to express the data. From the result, 67% showed that the existing geographic syllabus is too wide while 73% showed that map reading and physical geography are the difficult aspects of geography. The paper concludes that geography teachers should use the right methods and materials that will make the subject simple, interesting and meaningful to the students.

GEOGRAPHY FIELDTRIPS AT UMARU MUSA YAR'ADUA UNIVERSITY KATSINA, NIGERIA.

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Abstract:

This paper considers three questions: Why are fieldtrips used in geography? How does this interconnect with the geographers' own understandings of geography? What do lecturers hope to achieve on fieldtrips? Understandings are gathered from interviews with those who run fieldtrips. There has been a tradition of fieldtrips in Geography departments in Nigerian universities and this very custom helps to maintain them. Fieldtrips are shaped by geographers' particular theoretical approaches to geography and take different approaches according to their aims.

Key words: episteme, fieldtrip, geographer.

Examining the Challenges of Language Errors in Interpreting Features of a Topographic Map among Senior Secondary Students of Geography in Kaduna State

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Abstract

Subjects being taught in Nigerian schools National have unique terminologies and styles of being communicated .In geography, ways of expressing map terminologies and interpreting features have posed challenges to students of geography. This study was set to identify the kinds of language errors and grammar deviations students commit when interpreting the relationships of topographic map features. The study examined and analyzed the challenges language errors pose to working with maps and learning spatial relations in geography. One hundred and twenty (120) students of geography from ten (10) senior secondary schools in three Educational zones of Kaduna state were sampled for the study. A topographic map extract of Nigeria used for the SSCE in 2003 Geography 1B was used to generate test items tagged Topographic Achievement Test (TAT). Items in the test measured the proficiency of students in the tasks of identifying, presenting and interpreting topographic features. The data outcomes recorded as language errors were specific on the respondents' inability to use the correct terms and expression of interpreting features from the topographic map used especially faulty expressions, wrong grammar, wrong spellings and placement of words. The data was analyzed descriptively and graphs were drawn for emphasis. Ninety three percent (93%) of responses were found to be linguistically erroneous and conceptually distorted. Intervention measures were enumerated as possible solutions to ameliorating language problems of interpreting maps among geography students.

PROBLEMS OF TEACHING AND LEARNING GEOGRAPHY OF NIGERIA IN NIGERIAN HIGH SCHOOLS

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ABSTRACT

The general problems militating against the effective learning and teaching of geography of Nigeria were investigated. It was found that the problems of teaching and learning geography of Nigeria were not too different from those of the general problems of teaching and learning geography. In this regard it was discovered that: lack of professionally trained and qualified teachers rank among the major problems. Secondly the lack of interest among even the geography teachers and students is another contributory factor as well as the stereo type information students receive from their senior students. Generally, more of the students offering geography actually find it difficult to understand (79.17%) However, the difficulty in learning geography of Nigeria cuts across both male and female students while the curriculum in the the tertiary institutions also plays a negative role in the effective learning/teaching of geography of Nigeria. It is recommended that professional training of all teachers and more importantly geography teachers be increased while there should be a positive relationship between courses taught at tertiary level to those of the high school levels. Thus, revision of school curricula at all levels should be done with utmost care for effective delivery of education. In effect we are suggesting that there should be an introductory geography of Nigeria course in 100 level in degree awarding institutions departments of geography.

Quality and Quantity of Geography Teachers in Ifo Local Government Area Of Ogun State, Nigeria.

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Abstract

Geography has multiplicity of methods, techniques and applications. The teachers are products of tertiary institutions from within and outside of the state. The objective of the paper is to examine the quantity and quality of the subject teachers using Ifo Educational Zone as case study. The number of Geography Teachers in Public Schools is relatively higher than those of Private Schools. Generally, there are fewer teachers. The average age of the teachers is commendable. There are NCE holders in the SSS Classes. B. Sc (Hons) and B. A. (Hons) without teaching qualification are in classes. Some Private Schools have no Teachers for Geography, whereas, it is only one school that does not have teacher for Government. Teachers of Geography should be massively recruited. Those without teaching qualification should be given ample opportunity to update and upgrade themselves. All teachers should be exposed to contemporary methods, techniques, and issues in Geography. They should be made to be active members of AGN and ANGT (South-Western Zone). The three State tertiary institutions should be directed to train and produce massively. Geography should be given due recognition as a science subject and the Teachers should be remunerated like their counterparts in the sciences.

INFLUENCE OF INSTRUCTIONAL MATERIALS ON STUDENT'S PERFORMANCE IN GEOGRAPHY IN KAGARKO LOCAL GOVERNMENT, KADUNA STATE.

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ABSTRACT

This study was designed to examine the effectiveness of instructional resources in the teaching and learning of geography in senior secondary schools in Kagarko Local Government of Kaduna state. It analyzed extensively the use of instructional materials in the teaching and learning of geography and also investigated the relationship between the use of instructional resources and student performance. The method used in collecting the data was experimental. The target population was grouped into two i.e the experimental group and the control group. They were taught the same topic under different conditions (with teaching aids and without teaching aids). And the students were administered a test, marked and compared using students t-test statistics result shows that children learned very well when taught with teaching aids. The study then recommended the effective use of teaching aids in geography.

Information and Communication Technology (ICT) Awareness among Students in Secondary Schools, Implications for Curriculum Development in Geography

Ohwofasa W.O., Lagos E.J.U. and Awoyale E.O.

Abstract

Information and Communication Technology (ICT) has become a relevant teaching tool in this century, as its relevance cannot be over emphasized. The crux of this paper is to examine the relevance of ICT among Geography secondary school students, to find out the extent the secondary school student has been able to utilize these technologies to better their academic pursuit in and outside the confine of their schools. This study was conducted using four (4) randomly selected secondary schools from the Public and Private sectors in Edo State, Nigeria. The result revealed that many students were not ICT users. Many students lack the functional computer literacy foundation upon which to build new technology and skills. Analyses of students' perception of this subject of discuss revealed very low levels of ICT knowledge.

Analysis of Examination malpractices in Post – Primary Schools of Zaria Local Government Area.

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Abstract

Examination malpractice is involving in deliberate act of wrong doing contrary to official examination rules and is designed to place a candidate at an unfair advantage. This research aim at analysing examination malpractices in post-primary institutions of Zaria local Government area of Kaduna State. Survey research was used during the study by administering questionnaire and oral interviews to the respondents. Secondary sources of data consisting of textbooks and unpublished materials were used during the study. About 29.7 percent of the respondents strongly agreed that WAEC and NECO often fight against examination malpractices in post primary schools while 33.3 percent agreed and 10.3 percent of the respondents disagreed. Nearly 26.7 percent of the respondents strongly disagreed with the statement. At least, 44.0 percent of the respondent strongly disagreed that community/parents, participate actively in fighting examination malpractices in post primary institutions of learning while 33.3 percent disagreed and 12.0 percent of the respondents agreed to the statement. Nearly 10.7 percent strongly agreed with the suggestions. This implied that communities/parents don't participate actively in fighting examination malpractices in post primary institutions of learning. The study suggested that strong measures should be taken towards examination malpractices in post primary schools of learning in the country.

THE IMPLEMENTATION AND IMPACT OF INFRASTRUCTURAL FACILITY FOR CRIME PREVENTION AND CONTROL IN NIGERIAN URBAN CENTERS.

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Abstract

This paper, examines the implementation and impact of infrastructural facility for crime prevention and control in Nigerian urban centers. The study focuses attention on type of infrastructural facilities needed to aid both the Government and the security agencies in alleviation of their problems in crime control and prevention in urban centers in Nigeria. The work uses a similar experience adopted in South Africa and other areas, who used the Closed Circuit Television (CCTV) and Crime Prevention through Environmental Design (CPTED) approaches. For crime cases, which had become heightened in some urban centers/cities in Nigeria with little coping mechanism, the use and implementation of public open street Closed Circuit Television (CCTV) surveillance systems in Central Business Districts (CBDs) in Nigeria solely for the purpose of crime control (reducing street crime) or crime prevention (deterrence) has in South Africa been a relatively new intervention within the broader context of crime prevention programmes. If these measures of using physical infrastructure facilities are adopted by all organs that control and manage crime in the country, crime perpetration would be abated.

The Distribution of Road Infrastructure in Ekiti State, Nigeria

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Abstract

The provision and development of road infrastructure in any setting is to ease the movement of goods and services. In Ekiti State, the distribution of both Federal, State and Local Government roads are lopsided in favour of some areas at the expense of others. A lot of findings were identified as militating against the facility and recommendations, were made to move the development of his infrastructure to the next level.

Assessment of Housing Infrastructure at FCT Neighbourhood settlement in Masaka, Nasarawa State.

Olusegun Ekanade and Aishat Adamu Ahmed

Abstract

This paper examined the housing quality in Masaka, most houses today don't have basic amenities like water, light, toilet, kitchen and clean environment. We all know that a clean and comfortable environment is a healthy environment; we also know that health is wealth; most of our environment today is unhealthy due to pollution from open toilets, smoke from cooking or generator set and dirty water from vendor or stream. The research was conducted through the distribution of questionnaire to achieve the results.

SOLID WASTE MANAGEMENT IN URBAN AREAS OF KWARA STATE NIGERIA: A REAPPRAISAL

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ABSTRACT

Several works have been done on solid waste management in Ilorin the Kwara State capital. The focus of this research is on reappraisal on the sorts and sources of waste generated, the storage methods, frequency and the integrated methods of disposal. To achieve this, questionnaire were administered to inhabitants of Ilorin, Offa and Omu-aran towns. The analysis of the responses from the respondents revealed that rubbish or domestic wastes constitutes the greatest form of solid wastes generated in urban areas of Kwara State and is mostly from residential areas. Plastics and metal containers enjoy greater use for temporary storage of the waste in individual housing units. The integrated disposal methods are open: dumping by individuals and use of vehicles by private and public agencies responsible for the valuation of wastes. It is recommended that integrated waste management system be introduced in all urban areas of the state.

Key words: Solid waste, management, urban areas, rubbish, residential areas, open dumping, Kwara State.

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