



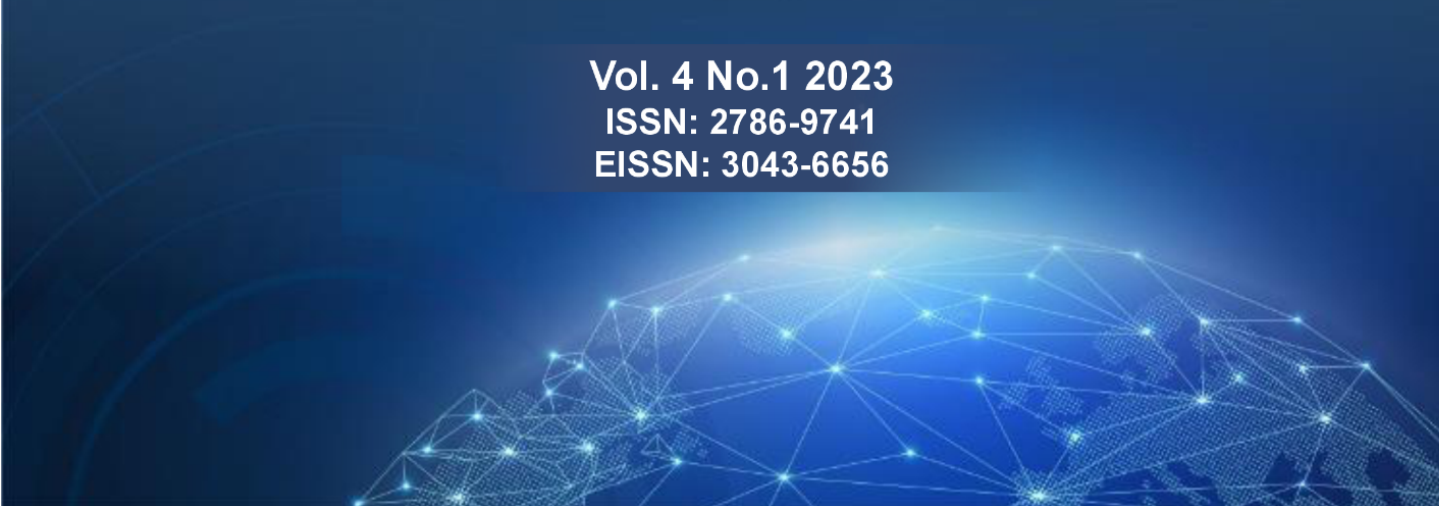
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## EDITORIAL INTRODUCTION

The efficient use of environmental resources has continued to be at the heart of human development. It therefore continues to, rightfully, attract a horde of researchers and researches. This edition of the African Journal of Geographical Sciences presents several topical issues on resources use, their sustainability and many more. For example, issues of water quality, agriculture and health are prominent in this issue for obvious reasons.

Ayeni et al took on the challenge of examining the socioeconomic impacts of nutrient enrichment and eutrophication of the Lagos lagoon coastal waters on artisanal fishermen. The study found that algae bloom and weed infestation have are major threats to fishing activities. Links were also found to exist between seasonal eutrophication of coastal waters, decrease in coastal water quality, reduced fish catch and decreasing socioeconomic indices of artisanal fishermen. The study recommended the combined support of government and non-governmental agencies to promote knowledge-sharing initiatives and awareness campaigns in order to contribute to the long-term sustainability of artisanal fishing activities.

Egharevba and Edohen evaluated the quality of water in aquatic recreational facilities in Benin City, Edo State, Nigeria against the World Health Organization (WHO) standards. They found that the facilities were deficient in many water quality properties and warned that users are at risks of contracting infectious diseases. They pointed out the need for immediate intervention that would require all aquatic recreational facilities to adhere strictly to established best global water quality standards.

Similarly, Areo evaluated the suitability of the University of Abuja Faculty of Law stream water for livestock use. Water samples were collected at upstream, midstream and downstream of the perennial stream. Analyses of physical, chemical and microbial properties of the water were conducted and compared against the standards fixed by the Federal Ministry of Environment (FME) and WHO. Generally, most of the indices met the standards set by both FME and WHO. The author recommended chlorination and boiling of the water to avoid health risks to both livestock and humans.

Galadima and Chundusu investigated the

quality of water from different sources used for irrigation purposes in Jos South LGA of Plateau State. Water samples were collected from household wastewater, industrial wastewater and mining ponds, and their physical, chemical and biological properties were analyzed. The result was a mix of properties that exceeded and those that met the limits set by Standard Organization of Nigeria (SON), the National Foods and Drugs Administration (NAFDAC) and WHO. The study recommended that agencies charged with the duty to monitor and maintain effective water quality be more proactive. This is especially as chemicals could accumulate over time and have negative adverse effects on humans even as their quantity are presently within set limits.

In continuation of the discussion on irrigation, Adams et al. examined the implications of irrigation systems in use in southern Kaduna on sustainable agriculture. The study discovered that farmers involved in irrigation bear the entire cost of their operations with no support from government or non-governmental agencies. Consequently, their irrigation methods are traditional and in variance with sustainable agricultural practices. The authors suggest that a shift be initiated from basin irrigation system to drip and sprinkler irrigation, along with introduction of more cash crops such as rice and a diversification of types of crops grown. This would require some support from government or NGOs.

Hara et al. determined the effect of some rainfall parameters on guinea corn yield in Katsina State. Parameters selected were total annual rainfall (AnnRF), length of rainy season (LRS) and number of rain days (NORD). The study found a positive correlation between AnnRF and yield of guinea corn and the combined regression model accounted for 54% of final yield of guinea corn. Soil moisture conservation measures were suggested to increase soil water retention and boost yield of guinea corn.

David et al. explored the important issue of farmers' awareness and adaptation to climate change in Kachia LGA of Kaduna State. Generally, most farmers were aware of climate change and have adopted some strategies to adapt to the situation. The most important adaptation strategy was the cultivation of varieties of crops. The authors recommended that weather forecast

information should be made available to farmers to help them make informed decisions on their farming practices.

Areo examined soil nutrient status under grass and tree covers in the mini campus of the University of Abuja at Gwagwalada. Several properties including bulk density, texture, porosity, pH, electrical conductivity, potassium, magnesium, ammonium, and organic matter among others, were analyzed. The author found that soils under grass land have higher level of bulk density and therefore are relatively more liable to soil compaction, which would hinder proper root growth. The soils also have relatively low levels of organic matter and CEC, and this will have a negative effect on crop yield, increase erosion and leaching of nutrients. Phosphorus in the soil will be further depleted and the chemical constraints of the cultivated lands will increase. The study recommended contour cultivation and mulching to check erosion of the soils at grass land, which were generally found at upper slopes prone to erosion.

Ibimode et al. explored the link between temperature and physiological comfort in Ibadan, Nigeria. The study found a significant inverse correlation between temperature and physiological comfort. Trend analysis showed an increasing trend in minimum temperature over the years that explained this inverse relationship.

Fatai studied the socioeconomic characteristics of slum dwellers in Bosso LGA of Niger State. The study found that most residents are middle income earners with relatively high level of education, civil servants and have high household sizes. The housing conditions were also fair and their water supply was largely from piped water connections or boreholes. Despite the seemingly positive outlook of the slums, the author cautioned that the unprecedented increase in slum areas and slum conditions in cities across Nigeria has adverse effects on urban sustainability. Urban regeneration and upgrading were recommended for serious and urgent consideration.

Health is always a central issue in any development venture. Dongurum, and Abdullahi independently examined health implications of risky sexual behavior, and of strenuous quarrying activities by women, respectively. Dongurum investigated recent trend in sexual behaviour and HIV risk of the general population of Plateau State. The study revealed that risky sexual behavior increased between 2003 and 2018, with a short lull

in 2013. Males were 2.5 times prone to high-risk sexual behavior than females, and people aged 25 years and above were 5 times more likely to engage in sexual activity behaviours that could result in contracting HIV than those who were younger. The study found that sexual inequality and inadequate knowledge and information on HIV were root causes of high-risk sexual behavior. Multilevel intervention is required to modify sexual behavior.

Abdullahi's study was on the health status of women involved in manual quarrying activities in Jalingo, Taraba State. It was discovered that a small but significant proportion of women involved in this industry reported experiencing severe body aches, including severe cases of malaria and typhoid. The author pointed out that severe body aches could be symptomatic of more serious health problems such as osteoarthritis or could also lead to stress and depression. These are important health considerations that should be taken into account by women involved in the industry as the long-term implications could be dire. Alternative livelihood sources should be considered.

Nesla et al. explored the relationship between farmland acquisition, farm sizes and food security in Barkin Ladi LGA of Plateau State. Land lease, purchase and inheritance were found to be the major forms of farmland acquisition in the study area. Farm sizes declined over the years. Average farm sizes were less than a hectare per farmer, which encouraged peasantry in farming practices, with serious negative implications for food security. Urgent interventions such as provision of farm inputs are needed to turn the tide against imminent food insecurity in the area.

Maton et al. examined the academic workload of pedagogical institutions in Jos South LGA of Plateau State and advocated for a proper manpower planning. The study found that though not teaching staff in secondary schools in the study area are professionally trained and qualified, their workload share per week were relatively high, with many being involved in the teaching of three or more courses, some of which are outside their trained specialty. They called for a fairer and better planned allocation of courses to ensure quality assurance and better productivity by teaching staff of secondary schools in the study area.

There is no doubt that these are critical studies whose results deserve studied consideration

and their results and recommendations should be taken seriously. The high quality of research and reporting deserves no less.

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