

Inventory and Classification of the Existing Geomorphosite Resources for Sustainable Tourism Development in the Kano-Nigeria

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Abstract

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Lack of adequate inventory of the existing geomorphosite resources and their classification is among the major challenges of geoheritage development in Kano State. This study aimed to provide an inventory and classification of the existing geomorphosite resources in the state. Information pertaining to potential landscapes was sourced from the Kano State Tourism Master Plan (2007), Kano State Tourism Master Plan and Strategic Plan (2013), oral narration, journals and previous researches were used to collect their coordinates using hand-held Global Position System (GPS) Garmin eTrex H and analyze them based on their functions to local communities. Data were also collected through an interview on issues related to functions of the landscape to the early settlers of the local community. The result indicated that, there are 55 existing geomorphosite resources in the state. Religious and Cultural landscapes are the major classification of geomorphosites in the area. A proper update of potential geomorphosite resources in the state should be done in due course. Government, private sector and individuals should gear up towards developing geomorphosite resources in the state. Government, private individuals and Nongovernmental organization should utilize the existing geomorphosites in the promotion of geoheritage, geo-education and geo-conservation. Government, private individuals and NGO through partnership should put more efforts into the development of geological heritage through the provision of basic facilities necessary for the promotion of the sites.

Keywords: Classification, Geomorphosite, Geoheritage, Inventory and Tourism

1. Introduction

Globally, landscape varied with distinct attributes such as rocks, caves and other natural relief features that attracted different types of tourists owing to their representation of people's history, culture and geo-education. Some are exceptionally beautiful, while others are essential in understanding the evolution of the environment and often form part of the world tourism Industry. The industry is one of the largest and fastest growing industries that play an important role in promoting economic development all over the world (Yan & Jie, 2015), developing

eco-cultural and scientific relation opportunities in the host community. As one of the largest economic sectors in the world, statistics from World Tourism Barometer shows that International tourist arrivals grew by a remarkable 6% in 2018 to reach a total of 1.4 billion and it is expected to continue with the strong momentum of 3% to 4% increase in 2019 as results of favourable economic environment and demand from the major source markets (United Nations World Tourism Organization, 2019). The industry accounts for 9.5% of the total gross domestic product, 1 in 11 of the world's jobs, 5.4% of world exports, as well as 4.4% of global investment (World Travel and Tourism Council, 2014). The growth of tourism also, has facilitated an increase in global income, demand for leisure, ensured competition in the global tourism industry and provides many valuable socio-cultural interactions (Chockalingam & Ganesh, 2010; Sariisik, Turkay, & Akova, 2011). Fundamentally, tourism as an asset depends mainly on eco-cultural resources which have enormous potential for the development of socio-economic activities and sustaining the character of the environment and the host community. With this development many developing countries considered tourism today as the main sources of development and growth for local economies (Hodur, Leistriz & Wolfe, 2005; Haller, 2012).

Tourism is an asset that depends mainly on natural and cultural resources that both developed and developing nations possessed which are being utilized to promote socio-economic activities and sustain the character of the environment and the host community. These resources have enormous potentials for development and poverty reduction where they occurred and are sustained, though the opportunities are not the same over the space, because of the variations of geographical characteristics.

Nigeria is a custodian of wide, varied and fascinating landscapes (Ayeni, Igbokwe, Onojeghuo, Onojeghuo & Ojiako, 2012) which have enormous potentials for sustainable tourism development amongst which is the Kano State. However, many of these attractions are still largely untapped and even in their raw states; they are still being enjoyed by few, either a very rich visitors in quest of exoticism or adventurous people in search of new challenges and experiences (Ayeni, et al, 2012), students in field work and researchers. These and many factors make the sites not to be fully recognized by the World Heritage Committee of UNESCO with the exception of very few across the country. These valuable resources require careful inventory and classification of landforms that have scientific and additional

values in order to achieve meaningful sustainable development goals for tourism purposes through promoting geomorphological heritage.

Though there are many empirical studies on the assessment of landscape resources for sustainable tourism development from different perspectives and approaches in Nigeria and Kano state in particular. But these studies are limited in spatial scope, as they addressed some parts rather than the entire state and thus excluded Inventories and classification of the existence of landforms that have scientific and cultural values for geomorphosite studies as most of the studies concentrate on identifying the eco-cultural tourism resources and their distribution in the state. These limitations constitute a gap between tourists, landscapes and the local community which thus affect the perspectives of geomorphosites studies in the Kano State. Based on this, it is important to make an inventory of the existing geomorphosites resources and their classification based on their importance to the local community. This can enhance the geographical character of the state, promote geoheritage, geoconservation, geo-education, poverty reduction and rational use of the sites. The study also provides geomorphosites information which can be used for effective marketing of Kano as a Geoheritage Haven State and open up new policy objectives by tourism planners and administrators and other related fields of study as well as to provide an avenue for further research.

2. Materials and Methods

2.1 The Study Area

Archaeological evidence identified in the Kano state from various places such as Challawa, Kukar-Bulukiya, Dala Hills, Santolo and Fangwai indicated that man was actively engaged in iron smelting culture in Kano at about 320 - 380 AD, which make the state to have a long history dating back to over 1,000 years (Mustapha Yakudima, Alhaji, Nabegu, Dakata, Umar, & Musa, 2014). However, in terms of development, towns and cities existed in the state which was surrounded by walls and gates that attracted many people from different parts of the globe, due to its historical and cultural significance.

The state lies between Latitudes $10^{\circ} 30'N$ and $12^{\circ} 37'N$ of the Equator and Longitudes $7^{\circ} 40'E$ and $9^{\circ} 23'E$ of the Greenwich Meridian. It has an estimated land size of $20,280 \text{ km}^2$ (National Bureau of Statistics, 2010) with a population of 9,401,288 (National Population Commission, 2006). It is some 900 Kilometers from the edge of the Sahara Desert and some 1, 100 km away from the Atlantic Ocean. The state shares boundaries with Jigawa state from the North and East, from

the West and South-West it borders Katsina and Kaduna states respectively. From the extreme South-East it borders Bauchi state (Figure 1).

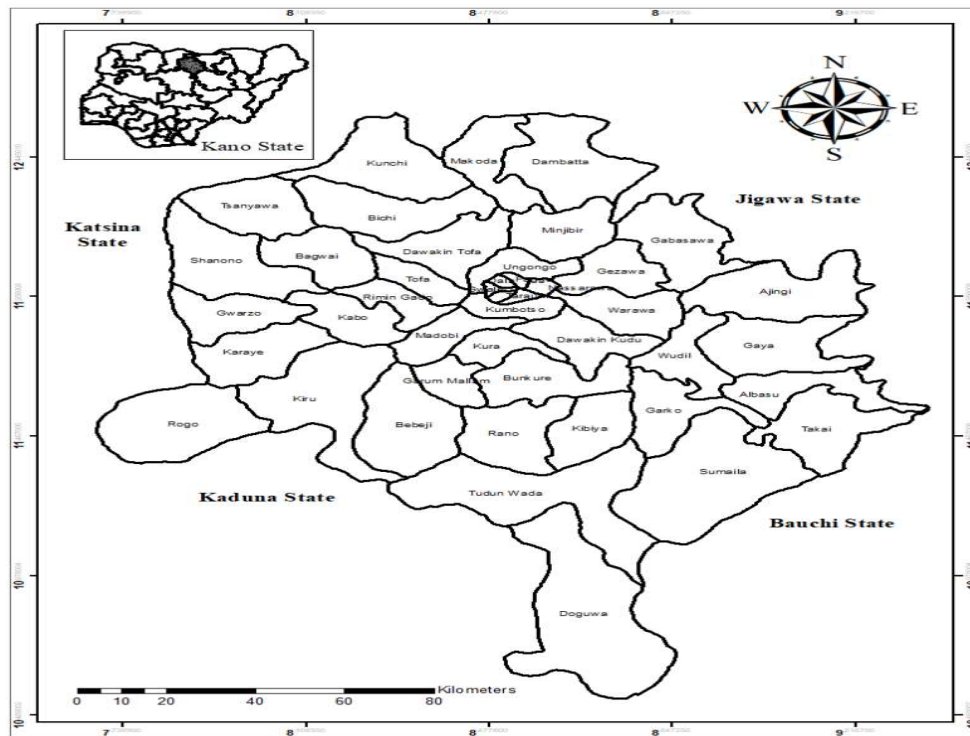


Figure 1: Map of Kano State Showing the Local Government Areas
Source: Cartography Lab, Bayero University, Kano

2.1.1 Geology and Relief of Kano State

Kano State is characterized by Basement complex rocks with elevation ranges from about 400metres (m) at the North-Eastern margin to over 1000m at the highest Southern tip (Olofin, 1987; 2008). The relief of the State as described by Olofin, (1987, 2008; 2014) and Rilwanu, (2018) is part of the Highlands of the Kano region, where the general elevation ranges between 650m to well over 1000m around the highest elevation of 1230m above mean sea level. However, the occurrences of geological processes in the state made it possible for the older granites to produce some isolated hills, inselbergs and dome-shaped structures that provide a good opportunity for tourism, (Barau, 2006 and Rilwanu, 2018). This makes the state house different geomorphic resources of interest for tourism development, which if

properly harnessed will promote geomorphosites studies in relation to geo-heritage, geo-conservation and geo-education.

2.1.2 Climate

Generally, the climate of the study area is the tropical dry-and-wet type, with more dryer than wetter months which is classified by Koppen's as Aw (Olofin, 1987, 2008). The climate of the state produces two dominant seasons in the state; i.e wet and dry seasons. The wet season lasts from May to Mid-October with a peak in August, while the dry season extends from mid-October of one calendar year to mid-May of the next. The commencement and length of the wet season vary between Northern and Southern parts of the state especially around Riruwai and Doguwa in the extreme south (Maryam, Halima & Umami, 2014) where the length of the season is six months from early May to late September, while in Northern parts it is from June to early September (Kurawa, 2006). The mean annual temperature is about 26°C (Olofin, 2008). This makes the state to have the advantage of good climatic condition in influencing the choice of the season to visit the geomorphosites in the state by geotourists and provides opportunities for other types of outdoor activities.

2.2 Types and Sources of Data

Quantitative and qualitative methods of research were employed in the study. The quantitative data include data pertaining to the inventory of the potential landscape for geomorphosites study of the state which was sourced from the Kano State Tourism Master Plan (2007), Kano State Tourism Master Plan and Strategic Plan (2013), oral narration, journals and previous researches were used to collect their coordinates and analyze them based on their functions to the early settlers of the local communities. Data were also collected through visitation to the attraction sites and collecting their pictures and coordinates using hand-held Global Position System (GPS) Garmin eTrex H. The qualitative data were collected through an interview on issues related to the functions of the landscape to the local community.

2.3 Sources of Data

Required data for the study were sourced both from field and documentary sources. The field data were obtained by visiting the locations of the geomorphosites resources and their coordinates were collected using a hand-held Global Position System (GPS) Garmin eTrex H which was exported to ArcGIS for mapping. The geomorphosites resources were classified based on their functions such as; archaeological, cultural, historical and religious values.

Documentary data on the inventory of the geomorphosites resources were sourced from the Kano State Tourism Master Plan (2007), Kano State Tourism Master Plan and Strategic Plan (2013), Jigawa State Tourism Board, Rock Painting Arts of Birnin Kudu, published and unpublished materials. Interview guide was used to solicit responses on the function of the landscape to the local community.

2.4 Population, sample size and sampling of the study

Landscapes of Kano State such as; hills, rock formations, caves were the target geomorphosites for the study. Based on the researchers' compilations from various sources (published and unpublished documents) the total number of the existing potential landscapes for geomorphosites in the State are 55. Also community leaders (village or ward heads) of all the 55 identified landscapes were used as the population of the study.

In sampling the required sample size of the landscape for the study in the State, all the identified landscapes that have scientific and additional value were purposively considered in the study. Also all the 55 community leaders (village or ward heads) around the identified landscapes were sampled for the study to have a full understanding of the functions of the landscape to the early settlers of the area.

2.5 Methods of Data Collection

The Global Positioning System (GPS) as an instrument was used to collect the quantitative data comprising locational information and other attributes related to geomorphosites resources through field surveying technique to make an inventory of the resources and their classes. Interview schedule with the community leaders to collect data on the function of the geomorphosite resources to the early settlers of the state.

2.6 Methods of Data Analysis

To achieve analysis of the inventory and classification, records of the existing geomorphosites resources were used to generate the coordinates of each destination and were related to their geographical locations. Lines were used to delineating road networks in the Region. The selected geomorphosites were extracted from the map using on-screen digitization for the query. The overlaid layers were created in ArcGIS for storing and managing Geographic Information.

However, the significance of the sites to the early settlers in the state that were gotten from documentary and oral source were used to create classes/types of

geomorphosites and their map in the GIS environment. Microsoft Excel was used to record the data acquired from GPS of the geomorphosites in tabular form which have different preparation to make them compatible with the software utilized for the analysis for easy exporting to ArcGIS 10.3 version for analysis, integration and presentation of the map.

1. Results and Discussion

Inventory, Distribution and Classification of Geomorphosite Resources in the Kano State Identifying and inventorying where available geomorphosite resources are located in the State is the first step to be done for geoheritage, geo-education and geo-conservation for tourism development. Taking into account that Kano State occupies about 20,280 km² size of the country, therefore only those landforms that possess additional value due to human perception in the region are considered in the study. However, since the declaration of Dala hill as geological heritage in the Kano state as a state monument by the state government under the supervision of the Kano State History and Culture Bureau, visitors with different interest from within and outside the country continue to patronize the sites without considering other important landforms that portrayed the culture, history, religious and other values of the early settlers in the state.

Based on the inventorying of the geomorphosite resources found in the Kano State, the result shows that the state is blessed with about 55 (Figure 2) existing geomorphosite resources found in different locations across the state that have the potential to attract different types of tourists. Out of the 55 identified sites located in the Kano state, Bebeji local government area has the highest occurrence of geomorphosite resources in the Kano state. The nature and characteristics of the geological formations found in the state resulted into different types of geomorphic resources that are very well spectacular in shape and unique capable of supporting scientific research, conservation, and preservation practices as well as satisfying the interest of the different tourists.

To appreciate the scenic importance of the resources in the state, Barau (2007a) and Abba and Rilwanu (2018) described the area as a place where the outstanding shape of rock formations are spectacular in physical appearance and look kiss the sky. The importance of the sites occurred as a result of the simple and homogenous geological structure and processes that took place in the region. Many of these sites are even more attractive as their geographical, historical, cultural, archaeological and religious values are truly outstanding.

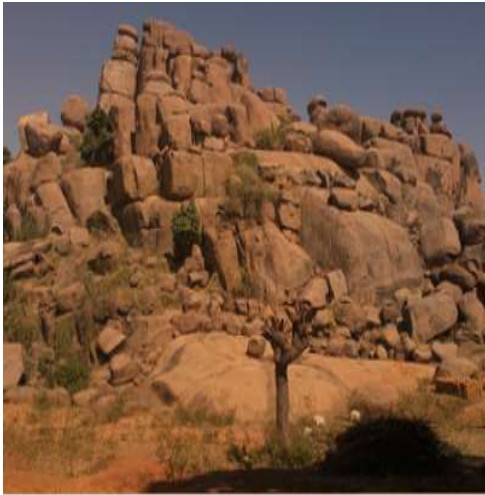


Plate 1: Tsangaya Hill at Albasu LGA



Plate 2: Rumbun Dutse at Albasu LGA

The Dashere inselberg is located at Rurum town in Rano local government area of Kano state, the site is believed to be a place where the wife of one of the earlier kings of Rano called Dashere lived, due to its beautiful and pleasant flat terrain at the top for resting. The Fajewa rock gongs like other existing rock gongs in the region is the oldest musical instruments that produce sound-like drums used during ceremonial rituals in the ancient periods.



Plate 3: Dashere inselberg at Rano LGA



Plate 4: Rock gong at Fajewa rocks at Takai LGA

In terms of relaxation, the region also provides some important landscapes that were used by the early human in the region for enjoyment and relaxation. The Dara holes (Draughts hill) in Rano local government area of Kano State (plate 6) serve as a good example where carve out holes on a rock was used as a game of ***Dara Joint*** for recreational activities of Kwararafa and Habe rulers of Rano and later the game was used during traditional ceremonies.



Plate 6: Draughts hill at Rano LGA

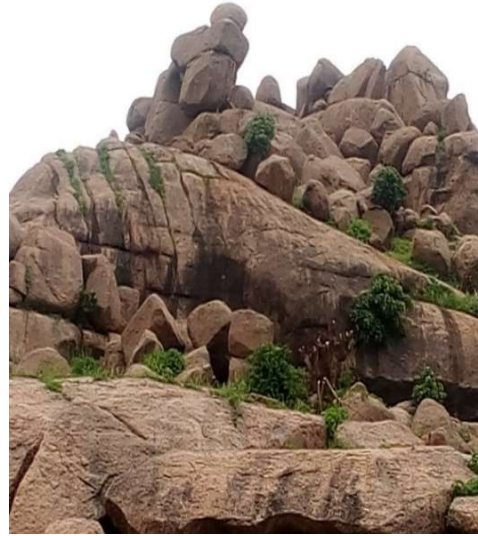


Plate 7: Mainasara Inselberg at Bebeji

In terms of defence, some landforms in the region provide good opportunities to the local community during civil unrest in the past to protect themselves against invaders and today they are worthy of tourism promotion. The Mainasara Inselberg (Plate 7) and Gabosanni rock ranges (Plate 8) in Bebeji and Bichi local government area of Kano State respectively provide an excellent defensive mechanism that forms part of the history of the areas and is good for sightseeing. The Mainasara Inselberg is believed to source its name from the victory that the site gives to the community over invaders during the war period. Findings from oral narration through interview revealed that, “*during war period the hill raised smoke as a signal to the community and it was at the top of the hill that the Emir of Rano died at the battle with Rantan warriors*”. While Gabosanni rock ranges are believed to have been used as a hideout during the war period and also emit smoke as an alert or signal to the community when invaders are coming to the area for them to prepare.

However, among all these geomorphosites, only Dala hill of Kano city (Plate 9) was declared a state monument by the state government under the supervision of the Kano State History and Culture Bureau. The remaining geomorphosite resources are waiting to be recognized either by the Local Governments, States and the National Commission for Museums and Monuments.



Plate 8: Gabosanni rock ranges at Bichi



Plate 9: Dala hill at Dala

The availability of geomorphosite resources and their driven opportunities in promoting tourism in Kano State confirmed the findings of Abba (2007); Barau (2007b); and Abba and Rilwanu (2018) in their studies carried out in some parts of Kano state, that the area possessed varieties of natural attributes that have excellent inherent value and attractive fascinating sites that satisfy the thirst of the mind and eyes of tourist as well as ideal for earth sciences, mountaineering, sightseeing and recreational activities.

Classification of Geomorphosite Resources

The values of the landforms in the region depend to the large extent on the perceptions of the community on the geomorphosites resources. The differences in perceptions make the resources have enjoyed different recognition by the different community depending on the relationship between landscapes and the community. Based on the available description of the function of the identified geomorphosite resources from both documented and oral sources, 6 classes were identified, namely; Archaeological, Cultural, Defense, Historical, Paleo-Climatic and Religious (Figure 3). Out of the identified existing geomorphosites resources, variation occurred in their concentration (Figure 5) based on the functions of the

landscape within the region which formed an important factor for the development of geomorphosites resources based on the values community hold on their local culture, history and social beliefs. The findings of the study are in conformity with the statement of Aldakhil (2007); Abba (2016) and Olayinka, Elochukwu and Okeoma (2018) that people in each region react to socio-cultural connotations of available object in their local environments due to their role in shaping; political, economic and social activities of man. The relationships between man and the physical environment make the global community have enjoyed various forms of unique diversity in geological heritage worthy for an attraction that forms part of the world heritage sites. This is because as posited by Ijeomah, Abere, and Onwuma, (2018) and Enemuoh, Ijoma, and Mbagwu (2021) that tourism as an activity involves a special relationship between visitors, the industry, the environment, culture using artifacts and souvenir to narrate or portray age-long ancestral interactions with host communities.

Based on Figure (3 and 4) the most frequent types of landscape based on functions its the religious landscape (17) and historical (16). The results indicate that Kano state can be considered a laboratory for the study of the relationship between the religious, history of the early settlers and the landscapes.

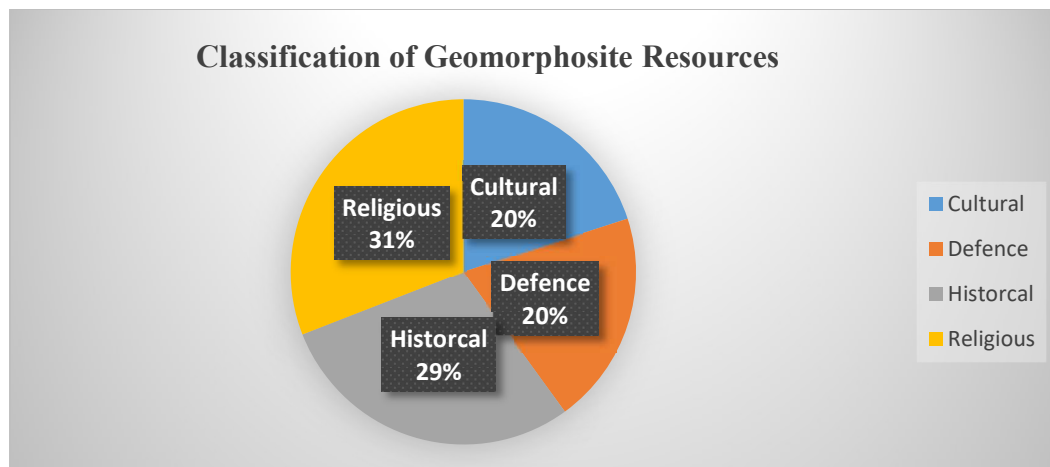


Figure 3: Classes of Geomorphosite Resources in the Kano State

The relationship between the religious, historical heritage and the landscapes of the region's confirmed the assertion of Abba (2016) that the physical environment

played an important role in shaping the religious belief and ritual practices of man in the Kano state that form part of their socio-cultural systems.

The results further indicated that, since the early days of the region's settlement, people have had a strong relationship with their landscape and are closely associated with their culture, especially in festivities, beliefs, relaxation and cultural architecture. The man's environment relationship in the state resulted in some geoheritage of the community that are of high interest to the tourist community by providing a memorable experience to the tourist. But today, the findings from the interview with community leaders shows that *"most of the traditional practices served by the religious and archaeological landscapes in the past to the early humans in the region are not in practice, due to influence of modernization and changes in faith that dominate the minds of people in the region"*. The result agreed with the findings of Rabo (2014) that today's dwellers of Bauchi and Jigawa States of Nigeria no longer participate in ceremonies that are linked to the rock paintings, due to the influence of the Islamic religious faith.

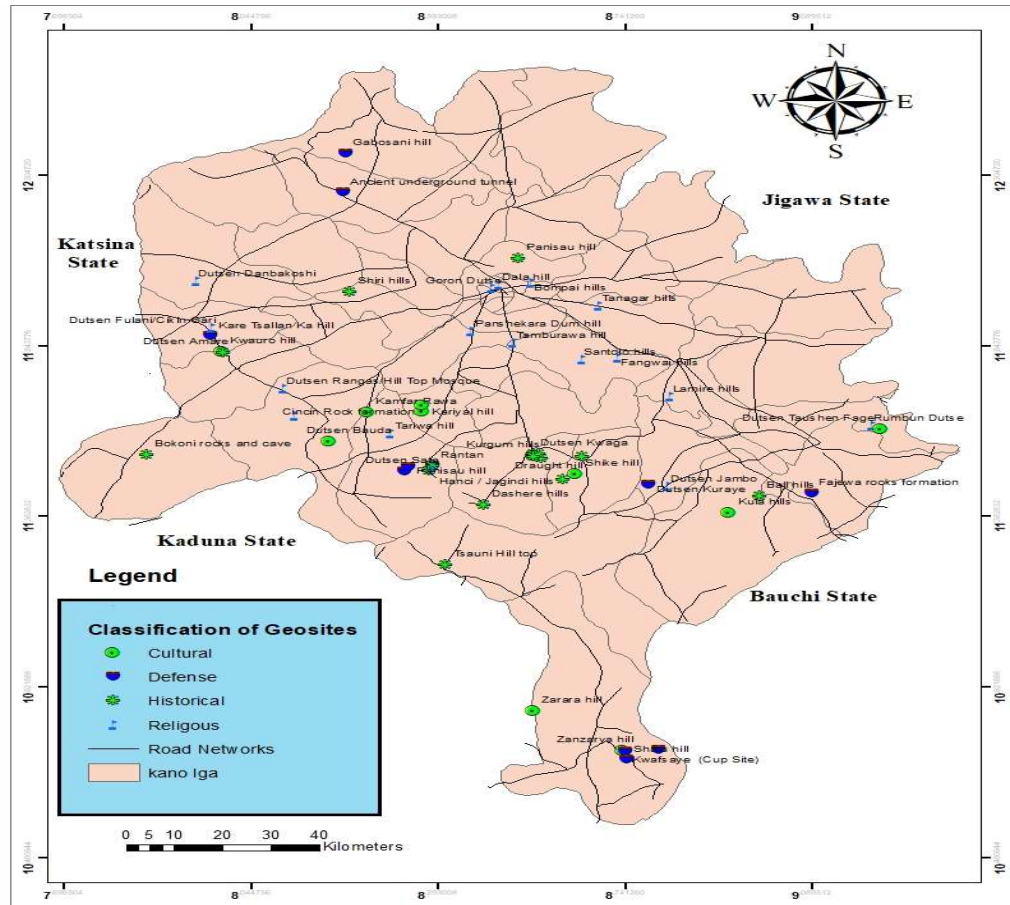


Figure 4: Spatial Distribution of Classes of Geomorphosite Resources in Kano State

Among the inventoried geomorphosites, eleven (11) promote cultural experiences of early humans in the state such as; Shi-Ke, Tsangaya hill, Zanzarya hill, Kamfar Rawa and Dara hill among others. However, another eleven (11) of the landscapes serve as a defensive mechanism to early settlers in such areas like Dutsen Sata, Rantan, Kare Tsallan Ka, Gabosanni, Maisaje and Fajewa rock formations. This indicated that, a number of landscapes in the state are good in promoting the cultural and defensive functions of the early settlers of the state which are good in promoting geo-heritage and geo-education.

2. Conclusion and Recommendations

Following the findings of the study it is observed that the Kano state is blessed with about fifty-five (55) existing geomorphosite resources located in different parts of the state that have the potential to attract different types of tourists. The enormous resources available within the state when properly developed would also serve as a strategy for the promotion of geoheritage, geoeducation, geoconservation and management priorities. Out of the fifty-five (55) identified sites, Bebeji local government area had the highest occurrence of geomorphosites resources in the region. Based on the available description of the functions of the identified geomorphosite resources from both documented and oral sources, four (4) classes were identified, namely; Cultural, Defence, Historical and Religious and the most frequent types of landscape based on their functions are the Religious (17) and historical landscape (16) in the Kano state. Based on the findings, it can be concluded that Kano State is blessed with enormous geomorphosite resources that would attract different types of tourists and serve as a strategy for the promotion of geoheritage, geoeducation, geoconservation and management priorities. From the foregoing the following were recommended:

A proper update of potential geomorphosite resources in the state should be done in due course. Government, private individuals and NGOs through partnership should utilize the existing geomorphosites in the promotion of geoheritage, geoeducation and geo-conservation and should put more effort into the development of geological heritage through the provision of basic facilities necessary for the promotion of the sites.

References

- Abba, M. (2007). An Assessment of the Tourism Resources of Rurum, Kano State, Nigeria (Master's thesis). Bayero University, Kano: Department of Geography, Kano
- Abba, M, (2016). Man and Environment in Early Kano Region: A Historical Perspectives. *Kano Journal of History*. 2, (2) pp 157-177
- Abba, M, & Rilwanu, T. Y. (2018). Physical Landscapes and Socio-Cultural Resources Potentials for Tourism Development in Rurum, Kano State, Nigeria. *Bayero Journal of Interdisciplinary studies*. pp 136-155
- Aldakhil, M, D (2007). Classification of Tourism Potential in Al-Qaseem, Saudi Arabia Using GIS. Thesis submitted for the Degree of Doctor of Philosophy at the University of Leicester, Department of Geography University of Leicester

- Ayeni, O. O. Igbokwe, J. I, Onojeghuo, A.O, Onojeghuo R.A and Ojiako J.C (2012). Geographic information system to the Tourism Industry in Abia State, Nigeria. In Bola, A & Oluseyi, F. (Eds.).Geospatial Technologies and Digital Cartography for National Security, Tourism and Disaster Management Proceedings of joint Conference of Geoinformation Society of Nigeria and Nigerian Cartography Association (Pp 12-24). Benin: Mindex Press Ltd.
- Barau, A. S. (2006). *An Account of the High Population in Kano State, Northern Nigeria*. <https://www.researchgate.net/publication/230865880>. Extracted on 5th November, 2019
- Barau, A. S. (2007a). *The Great Attractions of Kano*. Kano: Research and Documentation Directorate .Government House.
- Barau, A. S. (2007b). Landscape assessment for Recreation and Tourism Development in parts of Kano State (Master's thesis). *Bayero University, Kano, Department of Geography, Kano*.
- Chockalingam, M & Ganesh, A. A. (2010). Problems Encountered by Tourists. *Business and Economic Horizons* 3(3) 68-72.
- Enemuo, O.B., Ijoma, M.M. & Mbagwu, I.J. (2021). Evaluation of Sustainability Standards Used in the Development and Management of Selected Tourism Destinations in Lagos State. [DOI: https://doi.org/10.33281/JTHS20129.2021.1.2](https://doi.org/10.33281/JTHS20129.2021.1.2)
- Hodur, M.M.; Leistritz, F.L. & Wolfe, K.L. (2005). Accessing the Economic Development Potential of Nature. *Natural Social Science* 15(fall) 279-296.
- Ijeomah, H.M., Abere, S.A. & Onwuma, E. (2018). Evaluation of Security Situation and Cultural Components of Ecotourism in Okomu National Park, Nigeria. *Journal of Tourism and Heritage Studies* 7 (1), pp 96- 111
- Kano State Government (2007). *Kano State Tourism Master Plan*. Kano: Grand track tours Ltd
- Kano State Government (2013). *Kano State Tourism Master Plan (2014-2020) and Strategic Plan (2014-2015)*. Kano: Dawdha Educational Centre Building
- Kurawa. I. A. (2006). *Efforts of the Shekarau administration in Harnessing Resources for Social and economic development*. Being a presentation to Course 28 of Command and Staff College Jaji. Kano: Research and Documentation
- Maryam, L. Halima, A. I. and Umami, K. M. (2014).Weather and Climate. In Tanko and Momale (Eds) *Kano environment, society and development*. London & Abuja: Adonis & Abbey Publishers Ltd pp 13-19.

- Mustapha, A., Yakudima, I. I., Alhaji, M. Nabegu, A. B., Dakata, F., A.,D., Umar, Y. A., & Musa, B. U. (2014). Overview of the Physical and Human Setting of Kano Region, Nigeria. *Research journal's Journal of Geography* 1 (5) Pp 1-12
- National Population and Housing Commission. (2006). Abuja: Federal Republic of Nigeria
- National Bureau of Statistics (2010). *Annual abstract of Statistics*. Extracted from www.nigeriastat.gov.ng
- Olayinka G. Y., Elochukwu A. N., & Okeoma S. N. (2018). Ethnographic Study of the Processes and Challenges of Bronze Casting of the Benin People of Nigeria. *Journal of Tourism and Heritage Studies* 7 (1) pp 112-126
- Olofin, E.A. (1987). *Some Aspect of the Physical Geography of the Kano Region and Related Human Responses*, Departmental Lecture Notes Series No.1 Geography Department, Bayero University, Kano, Kano: Debis Standard Press.
- Olofin, E.A. (2008). The Physical Setting. In E. A. Olofin, Nabegu and Dambazau (Eds) Wudil within Kano Region. *A Geographical Synthesis (pp 5-34)*. Kano: Adamu Joji.
- Olofin, E. A (2014). Location, Relief and Landforms. In Tanko, A. I and Momale, S. B. (Eds) *Kano: Environment, Society and Development*. London & Abuja: Adonis & Abbey Publishers pp 1-11
- Rabo, S. E. (2014). A Study of Rock Paintings in Bauchi and Jigawa States. An unpublished M. A Thesis Submitted to the School of Postgraduate Studies Ahmadu Bello University, Zaria. Department of Environmental Design
- Rilwanu, T. Y. (2018). Relief and Land forms of the Northwest, Nigeria. In Nabegu, A. B, Naibbi, A. I & Garba A. S (Eds). *Northwest a Book of Readings*. Zaria: Ahmadu Bello University Press Limited, Zaria
- Sariisik, M., Turkay, O. and Akova, O. (2011). How to Manage Yacht Tourism in Turkey: A SWOT Analysis and Related Strategies, *Procedia Social and Behavioral Sciences*, 24: 1014-1025.
- United Nation World Tourism Organization (2019). *World Tourism Barometer and Statistical Annex*. January Edition
- WTTC (2014). Economic Impact of Travel & Tourism Annual Update: Summary. Available online: http://www.veilleinfotourisme.fr/medias/fichier/economic-impact-summary-2014-publie-le-030320142ppa4-final_1395222502243-pdf (accessed on 3 July 2018).
- Yan, F. & Jie, Y. (2015). National Assessment of Climate Resources for Tourism Seasonality in China Using the Tourism Climate Index. *Atmosphere*, 6, 183-194