Journal of Tourism Management Research

2021 Vol. 8, No. 1, pp. 57-67. ISSN(e): 2313-4178 ISSN(p): 2408-9117 DOI: 10.18488/journal.31.2021.81.57.67 © 2021 Conscientia Beam. All Rights Reserved.



DEVELOPING CLUSTER FOR MOUNTAINS AND HILLS TOURISM IN EKITI STATE, SOUTHWEST, NIGERIA

¹Department of Hospitality, Leisure and Tourism, Moshood Abiola Polytechnic, Abeokuta, Ogun State, Nigeria.

¹Email: <u>piusagbebi@gmail.com</u> ^{2xx4}Department of Ecotourism and Wildlife Management, School of Agriculture and Agricultural Technology, Federal University of Technology, Akure Ondo State, Nigeria. ⁴Email: <u>aaogunjinmi@futa.edu.ng</u> ⁴Email: <u>boodelcha@futa.edu.ng</u> ⁴Email: <u>boodelcha@futa.edu.ng</u>



ABSTRACT

Article History

២ Agbebi, P.A.1+

Ogunjinmi, A.A.²

Oyeleke, O.O.³

Adetola, B.O.⁴

Received: 12 January 2021 Revised: 15 February 2021 Accepted: 2 March 2021 Published: 18 March 2021

Keywords Mapping Observation Geographic information system Remote sensing control communities Visitors. The study described the development of cluster for mountains and hills tourism potentials in Ekiti State. Mapping and direct observation were used to collect both primary and secondary data. Mapping was done by the use of Geographic Information Sysytem (GIS), and Remote Sensing Tools (RST) which properly identified the GPS corodinates and photographs of mountains and hills locations in Ekiti State. These were later downloaded using Arc GIS software for further analysis and the production of multiple maps such as elevation, slope map, shaded relief map and contour map of Ekiti State. Findings clealy showed 57 elevations which were 600m and above, and 245 elevations that were less than 600m in different proportions and heights spread across 27 communities in the 3 zones of Ekiti State. Thus, communities that have two or more mountains and hills at different locations formed cluster as tourism destinations with proposed headquaters where all administrative works will be controlled. The study will ensure that the selected communities in Ekiti State would be given priority in massive infrastructural development to enable potential visitors and tourists to mountains and hills in Ekiti state have deserving comforts that could be compared to other existing mountains and hills destinations outside Nigeria. Conclusively, the government of Ekiti should provide adequate funds for infrastructure in all communities where mountains and hills are domociled.

Contribution/Originality: This study contributes to the existing literature on mountains and hills in Ekiti State, Nigeria. This study is one of the very few studies which have investigated mountains and hills tourism potentials in Ekiti State.

1. INTRODUCTION

Mountains and hills are endowed in natural resources and cultural heritage of inhabitants which include water, timber, minerals, biodiversity and rich culture and traditions of people of the areas which serve as desired destinations for many tourists, migrants and pilgrims, and also serve as places for rest, solitude, adventure, recreation and scenic beauty (FAO, 2016). A cluster of mountains and hills means 'a group of mountains and hills with similarity in form and structure, and alignment that have arisen from the same cause and are domiciled in a particular areas or locations (Oxford Dictionary, 2019). Mountains and hills tourism is a type of tourism activity which occurs in a defined and limited geographical space of mountains and hills with distinctive characteristics and attributes that are inherent to a specific landscape, topography, climate, biodiversity and local community. It comprises a broad range of outdoor leisure and sport activities; an attributes that position it for frequently patronized segment of tourism sector worldwide (UNWTO, 2019).

Tourism generally has become a global leisure activity, and has to its credit virtually uninterrupted growth over time despite occasional shocks, demonstrating the sector's strength and resilience which could be seen in the International tourist arrivals' increase from 25 million globally in 1950 to 278 million in1980, 674 million in 2000, and 1.19 billion in 2015 (UNWTO, 2016). This is statistical evidence that tourism globally is a sector to reckon with in view of its outstanding contributions to the world economy. Mountains and hills tourism is a type of activity which take place in a defined and limited geographical space such as hills and mountains with distinctive characteristics and attributes that are inherent to a specific landscape, topography, climate, biodiversity and local community. Mountain and Hill tourism is a new sector in tourism which is gradually increasing it's positioning within the assortment of forms of tourism that we have and showing a rapid development throughout the world in recent decades. Mountain areas have currently established themselves as the second most visited visitors and tourists destinations, and as well contributing to 15-20% of tourism worldwide, which represents between 70 and 90 billion dollars per year (Taher, Jamal, Sumarjan, & Aminudin, 2015).

According to Mandy (2013) it is estimated that about 13 million people live in the Alps. While about 100 million visitors visit the Alps each year. Mountains can be places for leisure activities. Many people like to ski on mountains. Other people like to climb mountains. Some people like to just visit mountains to take photos and admire their beauty. Tourists are attracted to mountains for many reasons: the climate and clean air, varied topography, beautiful scenery, local traditions, simple life styles, sports that require steep slopes or winter snow. Typical mountain activities include; Mountaineering, Paragliding, summer activities include walking, hiking, bird watching, rafting, Mountain Biking. Winter Activities include skiing, snowboarding, Sledging / Tobogganing, Icefall climbing, Snow-Shoe Trekking, winter walking, Ice skating. Mountain is described as landform that rises prominently above its surroundings, generally exhibiting steep slopes, a relatively confined summit area, and considerable local relief. Mountains generally are understood to be larger than hills, but the term has no standardized geological meaning (Britannica Encyclopedia, 2020). Mountain is also described as a landmass that projectrs conspicuously above its surroundings and is higher than a hill (Merriam Webster Dictionary, 2020). Mountain tours may be self-guided or led by tour guides. It may last hours, days or weeks and can involve a range of land, snow or fresh-water based activities. Temporary forms of accommodation such as tents or vehicles (camping) may be utilized. Equipment and provisions needed vary depending on duration of the walk, weather conditions, predictability of the weather, environmental conditions, among others. Availability of facilities such as toilets, food, water and shelter along the route also provide the much needed services during the various mountain-related activities. Mountain tourism destination has several tourism packages aimed at catering to the various tastes and preferences of the different types of visitors and tourists. These packages each have different impacts on the region's economy, as sometimes the tourist will bring everything with them from their home countries while others may expect tour operators to supply equipment, clothes, transport and/ or lessons. It will therefore be necessary to assess the effect of the different packages on offer for mountain tourists visiting the mountain region. This will also bring to light the kind of packages that can be encouraged, and those that are less beneficial towards a wider community benefit, which ought to be discouraged.

(Mountain Vacation Packages, 2020) the purpose of this paper and its specific objectives are clearly described. Firstly, the paper documented and mapped mountains and hills in Ekiti State. Secondly, the paper identified the communities where mountains and hills are domiciled. Thirdly, the paper grouped together the nearer communities where mountains and hills are domiciled in the three zones of Ekiti State. Fourthly, the paper identified the perceived suitable communities as headquarters for the clusters of mountains and hills.

The study is significant for the following reasons; mountains and hills not only provide sustenance and wellbeing to 1.1 billion mountains and hill people around the world but also indirectly benefit billions more living downstream through provision of fresh water, energy and food resources that will grow increasingly scarce over the coming decades (FAO, 2016). It is evidently clear that Ekiti State does not have sustainable industries that can help grow her economy. The internally generated revenue is so meager that without the support of the federal government, Ekiti State would have been a shadow of itself financially in all areas. If mountain and hill tourism in Ekiti State is well developed to international standard, it will not only generate substantial revenues to the government, it will also give Ekiti State a jolt to prominence in the midst of other States in Nigeria. It is also significant to know that the development of cluster for mountains and hills in Ekiti State will provide a broad spectrum for easy identifications and classifications for the provision of infrastructures in the communities where they are domiciled. Furthermore, prospective visitors and tourists to mountains and hills locations in Ekiti State will have their preferences from the lists of available mountains and hills tourists' destinations for their pleasure and leisure purposes.

2. MATERIALS AND METHOD

2.1. The Study Area

The study on developing cluster for mountains and hills was conducted in Ekiti State, Southwest Nigeria. It was carried out in some selected communities with mountains and hills; Ado Ekiti, Ilokun, (Ado Local Government Area), Efon Alaaye, Obake, Orisumibare, and Oba Ayetoro (Efon Local Government Area), Ijero and Epe (Ijero Local Government Area), Aramoko, Erio, and Okeimesi (Ekiti West Local Government Area), Iyin, Iworoko, Igede (Ifelodun/Irepodun Local Government Area), Igbole Ekiti (Ido/Osi Local Government Area) Abaoke-Ilabo (Ikole Local Government Area), Ewu (Ilejemeje Local Government Area) Ilupeju and Apata-Aje (Oye Local Government Area), Ilawe and Igbara-Odo, Ikogosi, Ipole-Iloro (Ekiti Southwest Local Government Area), Ikere Ekiti, Atoka, Oke Aso, and Okejegbende (Ikere Local Government Area). Figure 1 Ekiti State is located between longitudes 40 ° 51^I and 50° 451^I East of the Greenwich meridian and latitudes 70 ° 151 and 80° 51^I North of the Equator. It lies south of Kwara and Kogi State, East of Osun State and bounded by Ondo State in the East and in the South. The land Area is 5,887.890sq km. The size, latitudes and longitudes of the selected towns and communities in Ekiti State for this study are in Table 1. The land of Ekiti is known for its forest resources, notably timber. However, because of favourable climatic conditions, the land enjoys luxuriant vegetation. The flora composition in Ekiti State includes trees species such as Acacia albida Delile (Mimosaceae), Albizia fernginea (Mimosaceae), Alstonia boonei De wild (Apocynaceae), Berlinia coriacea Keay (Caesalpiniaceae), Antiaris toxicaria Lesch (Moraceae), celtris zenkeri Engl (Ulmaceae), Melicia exlcesa (Welw) Benth (Moraceae), Khaya grandifoliola C.DC. (Meliaceae), etc. Also, animal species such as grass-cutter (Thyronomys swinderianus), Maxwell duiker (Cephalophus maxwelli), Bush pig (Potamochoerus porcus), ground squirrel (Protoxerus stranger), African giant rat (Cricetomys gambianus), Bush buck (Tragelaphus scriptus), etc. are predominant in the area. The State enjoys tropical climate with two distinct seasons. These are the rainy season (April-October) and the dry season (November-March). The annual rainfall values in Ekiti in the last 20 years ranges between 996.4mm minimum to 1549.4mm maximum (Owolabi, 2019). Temperature ranges between 21° and 28 °C with high humidity which ranges between 65 - 100% during the dry and wet season respectively. The south westerly wind and the northeast trade winds blow in the rainy and dry (Harmattan) seasons respectively. The occupation of indigenes of Ekiti State is predominantly farming because the land enjoys favourable climatic conditions with luxuriant vegetation, where food crops such yam, cocoyam, cassava, rice, and maize are grown in large quantities. There are other notable crops like Cocoa and Kolanut, while and other varieties of fruits such oranges, pineapples, cashew, Plantain, Bananas etc. are cultivated in commercial quantities. As a matter of fact, Ekiti people are culturally homogeneous and speak a dialect of Yoruba language known as Ekiti. This homogeneous nature confers on the state some uniqueness among the states of the federation. Ekiti State is generally an undulating part of the country with a characteristic landscape that consists of old plains broken by step-sided out-crops that may occur singularly or in groups or ridges. Such rocks out-crops exist mainly at

Aramoko, Efon-Alaiye, Ikere Ekiti, Igbara-odo ekiti, and Okemesi Ekiti. The State is dotted with rugged hills, notable ones being Ikere-Ekiti Hills in the south, Efon-Alaiye Hills on the western boundary and Ado-Ekiti Hills in the centre. Many hills in Ado Ekiti are Ekiti Hills located along Iyin road. Also, Okuta gbokuta lori hills (Hill carries hill) Olota hills are domiciled in Ado-Ekiti. Generally, Ekiti land is naturally endowed with numerous natural resources such as Granite, Kaolin, Columbite, Channockete, Iron ore, Baryte, Aquamine, Gemstone, Phosphate, Limestone, Gold among others. These are largely deposited in different towns and villages of Ijero, Ekiti west, Ado-Ekiti, Ikole Ekiti, Ikere, Ise-Ekiti, Okeimesi, Aramoko, Igbara-Odo, Erio, and Osi Ekiti.



Source: Field Survey, 2019.

Figure-1. Map of Ekiti showing study areas.

2.2. Sampling Techniques

2.2.1. Mapping /Direct Observation Method

This study used mapping and direct observation as instrument for data collection. The mapping involved the integration of Geographic Information System (GIS), and Remote Sensing Tools (RST). Geographic Information Systems are computer based systems that are used to capture, store, analyze, and display geographic information while Remote sensing entails obtaining information about the earth surface by examining data acquired by a device, which is at a distance from the surface, most often satellite orbiting the earth and airplanes (Steven, Dudley, Melinda, & Eric, 2015). That is each mountain and hill was properly identified by taking their GPS coordinates and photographs. These were later downloaded using Arc GIS software for further analysis and the production of maps. In the first instance, there was digital processing of the Shuttle Radar Topographical Mission (SRTM) and Digital Elevation Model (DEM) with a ground resolution of 30x30m. Secondly, the four (4) SRTM and DEM (elevation maps, slope maps shaded relief map and contour map) images covering Ekiti State were downloaded from the Unite States Geographic System (USGS) Earth Explorer Website.

Table-1. Location and size of the study areas.				
Communities	Longitude	Latitude	Areas	
Ado Ekiti	5.2209° E	7.6233 ⁰ N	293km²	
Ilokun Ekiti	5.25574° E.	$7.68818^{0}\mathrm{N}$	50km ²	
Oke Aso	$5.20770^{\circ}\mathrm{E}$	$7.49945^{0}\mathrm{N}$	5km²	
Efon Alaaye	$4.9167^{\circ}\mathrm{E}$	7.6500° N	232km²	
Obake	4.91720125° E	7.5858779°N	$22 \mathrm{km}^2$	
Orisubare	4.9195154 ^o E	$7.653979^{0}\mathrm{N}$	$21 \mathrm{km}^2$	
Oba-Ayetoro	4.9195154^{0}	$7.6539799^{0}\mathrm{N}$	19km²	
Ijero Ekiti	$5.0672^{\circ}\mathrm{E}$	7.8151 ⁰ N	150km ²	
Epe Ekiti	5.1172° E	$7.7924^{0}\mathrm{N}$	15km ²	
Aramoko	5.0443° E	5.0443° E	165km²	
Oke-Imesi	$4.9221^{\circ}\mathrm{E}$	$7.8354^{0}\mathrm{N}$	95km²	
Erio	5.00701° E	7.73112 ⁰ N	10km ²	
Iyin Ekiti	5.1588° E	7.6620 ⁰ N	15km²	
Iworoko	$5.2580^{\circ}{ m E}$	$7.7420^{0}\mathrm{N}$	10km ²	
Igbole	$5.1760^{\circ}\mathrm{E}$	$7.7976^{0}\mathrm{N}$	8km²	
Aba Oke ilabo	$5.5106^{\circ} \mathrm{E}$	7.7897 ⁰ N	5km^2	
Ewu.	5. 18272 ⁰ E	$7.93228^{0}\mathrm{N}$	9km²	
Ilupeju	5.3573° E	7.8003 ⁰ N	12km²	
Itapa Ekiti	$5.234^{0}\mathrm{E}$	$7.4847^{0}\mathrm{N}$	10Km ²	
Ilawe	$5.1119^{0} \mathrm{E}$	$7.5923^{0}\mathrm{N}$	20km ²	
Igbara-Odo	$5.0625^{\circ}\mathrm{E}$	$7.5038^{0}\mathrm{N}$	15km²	
Ikere	$5.2319^{0}E$	7.4991°N	263km²	
Okejegbende	5.310250°E	$7.665581^{0}\mathrm{N}$	5km²	
Atoka	$5.2077^{0}\mathrm{E}$	$7.6655^{0}\mathrm{N}$	5km ²	
Igede –Ekiti	5.126270°E	7.668500°N	23km²	
Ikogosi-Ekiti	4.5853°E	7.3539°N	16km ²	
Ipole Iloro	5.4600°E	$7.2500^{\circ}N$	10.5km²	

Source: Field Survey, 2019.

Thirdly, the images were mosaicked (formed picture of multiple maps) and study area was extracted from the image. Lastly, the Digital Elevation Model derivatives such as elevation maps, slope maps, shaded relief map and contour map were obtained through the analyses and were overlaid together and reclassified into Map showing areas of High Slope, parallel to the sun elevation, closer contour lines, and abrupt change in elevation (characteristics of hills and mountains) to generate the final Map (GIS and RST, 2019).

Elevation Map: This was generated through integration of Shuttle Radar Topographical Mission (SRTM) and Digital Elevation Model (DEM). There were five classes of elevation generated namely:

- 1. The area with light green colour shows height (elevation) ranging from 293m to 387m.
- 2. The area with deep green colour shows height ranging from 388m to 443m.
- 3. The area with light brown colour shows height ranging from 444m to 502m.
- 4. The area with deep brown colour shows height ranging from 503m to 556m.
- 5. The area with white colour shows height ranging from 557m to 757m Figure 2.



Source: Field survey, 2019.

3. RESULTS

3.1. Identification of Mountains and Hills in Ekiti State

The mapping of mountains and hills in Ekiti State clearly showed their minimum and maximum proportions and heights in the selected communities of the State. There were 27 selected communities with mountains and hills of various heights and proportions. This was revealed in the Map of Ekiti State obtained through Geographic Information System and Remote Sensing Tool (GIS and RST, 2019) there are 59 elevations that are 600m and above, and 245 elevations that are less than 600m in different proportions and heights domiciled at different locations in the selected communities of the State. The implication of this is that potential tourists and visitors to the sites will have the opportunity to make choice of which mountains or hills destination to visit for recreational activities. It will also assist them to make necessary preparations towards the mountains and hills' tour whenever the situation arises. It is important to know that some communities have several mountains and hills at different locations within their domains. The classification will provide another opportunity for tourists and visitors to identify which mountain or hill will suite their choice to visit for recreational, health development or spiritual fulfillment purposes. Furthermore, through classification, the highest and lowest mountains and hills in each community where the potential tourists and visitors intend to visit is known. Thus, they visit mountains and hills

that provide them the desired comfort or that suit their purposes. These mountains and hills were surrounded with biological diversities which were mainly plants and animals of various kinds. While features such as spring waters, fresh airs, rich soil, including cool climate are attached to the mountains and hills in Ekiti State. From the results of mapping, it was observed that the highest mountain in Ekiti is domiciled in Ilupeju Ekiti having a height of 757m while the lowest mountain is domiciled in Iyin Ekiti with height of 606m. It is also interesting to know that the highest hill with a height of 599m is also located in Ilupeju Ekiti while the lowest hill with height of 354m can be found in Ikere Ekiti. It was discovered that Ikere Ekiti has 2335 hectares of land occupied by Mountains and 2334 hectares, the highest occupied by hills of different proportions and heights in Ekiti State. Also, Aba Okeilabo in Ikole local government of Ekiti State has 52 hectares of land, the lowest occupied by Mountains while Aramoko Ekiti has 9 hectares of land, the lowest occupied by hills in Ekiti State.

3.2. Identification of the Communities and the Proposed Headquarters Where Mountains and Hills are Domiciled

According to the Map of mountains and hills developed for some selected communities in Ekiti State, there are 59 identified elevations of 600 meters and above (mountains) locations and 245 hills locations spreading across 27 communities in the three zones of Ekiti State. This shows that each community has two or more mountains and hills at different locations. However, the numbers of mountains and hills in each of the communities form a cluster as destinations for tourism development in the State.

S/N Communities		Mountains	Hills	Total	
Group A	1. Ado Ekiti	1	3	4	
	2. Ilokun Ekiti	0	4	4	
	3. Iworoko Ekiti	1	19	20	
Group B	1. Iyin Ekiti	6	6	12	
	2. Igede Ekiti	0	4	4	
	3. Aramoko Ekiti	0	2	2	
	4. Ijero Ekiti	1	5	6	
	5. Epe Ekiti	1	5	6	
Group C	1. Efon Ekiti	1	3	4	
	2. Okeimesi Ekiti	2	4	6	
	3. Obake	4	6	10	
	4. Orisunbare	4	4	8	
	5. Erio Ekiti	3	9	12	
	6. Oba Ayetoro	3	3	6	
Group D	1. Ilupeju	10	26	36	
	2. Itapa	4	16	20	
	3. Ewu	0	2	2	
	4. Aba Oke ilabo	1	5	6	
	5. Igbole	1	1	2	
Group E	1. Ilawe Ekiti	1	37	38	
	2. Igbara Od	1	10	11	
Group F	1. Ikogosi Ekiti	2	2	4	
	2. Ipole Iloro Ekiti	3	2	5	
Group G	1. Ikere Ekiti	8	44	22	
	2. Oke Aso	1	11	12	
	3. Okejengbede	0	6	6	
	4. Atoka	0	6	6	
	Total	59	245	304	

Table-2. Selected communities with mountains and hills and their proposed headqua	rters
---	-------

Source: Field Survey, 2019.

That is all similar mountains and hills in two or more communities were grouped together as cluster for tourism development. In Ekiti central zone, three centers were identified with each centre having three or more communities with clusters of mountains and hills. In Ekiti North, one center was identified with five communities loaded with clusters of mountains and hills. In Ekiti South, three centres were identified with each center having two or more communities with cluster of mountains and hills. In all, there are seven identified centers where cluster of potential mountains and hills are domiciled, and can be transformed to tourism destinations of international standard. At each center, a community was proposed as headquarter to serve other surrounding communities with mountains and hills, and where all the necessary infrastructures such as accommodation, catering and entertainment facilities could be cited and well developed for the potential visitors and tourists to the mountains and hills in the nearest future. Table 2 shows communities with mountains and hills and their proposed headquarters.

3.3. Cluster of Mountains and Hills in Ekiti State

The groups being shown in Figure 3 are communities in Ekiti State, Nigeria with mountains and hills of touristic values that are within the same geographical locations and can form clusters to pave way for easy distribution of facilities and amenities to support mountains/hills tourism.



Figure-3. Diagram showing the cluster of mountains and hills in Ekiti State. Source: Field Survey, 2019.

3.4. Criteria for Each Cluster

- 1. Each cluster has mountains and hills of different sizes and shapes.
- 2. Each cluster has reasonable proximity to each other within the same areas.
- 3. Each cluster has comparatively homogenous characteristics in terms of people, climate, topography, culture and tradition.

As shown in Table 3, there are proposed head-quarters for each of the groups that formed clusters. We have Ado Ekiti for group A, Aramoko Ekiti for group B, Efon Ekiti for group C, Ilupeju Ekiti for group D, Ilawe Ekiti for group E, Ikogosi Ekiti for group F and Ikere Ekiti for group G. There are available facilities which are presently

in place in these communities while the expected or required facilities to be put in place for the comfort of mountains/hills tourists are proposed. It is important to know that the availability of these facilities in the proposed communities will facilitate mountains and hills tourism development in Ekiti State as prospective tourists from far and near will be willing to come to Ekiti State, Nigeria for pleasure purposes in mountains and hills tourism.

S/N	Proposed	Current facilities	Required facilities
	Headqts		
1	Ado Ekiti	Restaurants, Fast food centers,	Airport, independent electricity,
		Amusement parks	Administrative staff office
		shopping malls Boads Taxi	Administrative stan onice
		Hotels	
2	Aramoko Ekiti	hotels, local restaurant,	renovation of old hotels, building
			of new ones, restaurants, good roads, steady light.
			Administrative staff office,
			Shopping mall.
3	Efon Ekiti	hotels, local restaurant,	renovation of existing hotels, building of new ones,
		guest houses	steady light, administrative staff office. good roads,
			effective network. Shopping mall
4	Ilupeju Ekiti	hotels, local restaurant,	administrative staff office, building more hotels,
		guest nouses	catering outlets, snopping mail. Steady water
5	Ilawe Ekiti	guest houses local restaurant	small and medium size hotels. Bestaurants
0	nawe Entr	guest nouses, rotal restaurant,	shopping malls. Steady light, good network, good
			roads. Administrative staff office. Steady water
			supply
6	Ikogosi Ekiti	guest houses, local eatery	shopping malls, steady light, good network, new
			hotels, good roads. Administrative staff office,
			steady water supply
7	Ikere Ekiti	hotels, guest houses, fast foods	shopping malls, standard Restaurants, effective
			networking, Administrative staff office,
			Steady electricity and water, etc.

Table-3.	Facilities	available and	l required	in	each	cluster.

4. DISCUSSION

The Mapping brought to the fore mountains and hills domiciled in study areas at different geographical locations in Ekiti State. The findings revealed that some communities have several mountains and hills at different locations within their domains while potential visitors and tourists to Ekiti State for mountains and hills tourism will have opportunity to identify which mountain or hill will suite their choice to visit for recreation, health development or spiritual fulfillment purposes. Through mapping, classification was made possible. The highest and lowest mountains and hills in each community where the potential tourists and visitors intend to visit were also known. It was also discovered that the mountains and hills were surrounded with biological diversities which were mainly plants and animals of various kinds. While features such as spring waters, fresh airs, rich soil, including cool climate are attached to the mountains and hills in Ekiti State were also discovered. From the results of mapping, it was further observed that the highest mountain in Ekiti is domiciled in Ilupeju Ekiti having a height of 757m while the lowest mountain is domiciled in Iyin Ekiti with height of 606m. It is also interesting to know that the highest hill with a height of 599m is also located in Ilupeju Ekiti while the lowest hill with height of 354m can be found in Ikere Ekiti. It was discovered that Ikere Ekiti has 2335 hectares of land occupied by Mountains and 2334 hectares, the highest occupied by hills of different proportions and heights in Ekiti State. Also, Aba Okeilabo in Ikole local government of Ekiti State has 52 hectares of land, the lowest occupied by Mountains while Aramoko Ekiti has 9 hectares of land, the lowest occupied by hills in Ekiti State. The development of clusters of mountains and hills was made possible through mapping and classification of mountains and hills domiciled in some selected communities in Ekiti State, there are 59 identified elevations of 600 meters and above (mountains) and 245 elevations below 600

meter (hills) locations spreading across 27 communities in the three zones of Ekiti State. This shows that each community has two or more mountains and hills at different locations. However, the numbers of mountains and hills in each of the communities form a cluster as destinations for tourism development in the State. That is all mountains and hills in two or more communities were grouped together as cluster for tourism development with proposed community to serve as a center for other communities. The essence of this is to ensure that the selected communities are given priorities in massive infrastructural development to enable potential visitors and tourists to mountains and hills have deserving comforts that could be compare to other existing mountains and hills destinations in the world.

5. CONCLUSION

The study was done to develop cluster for mountains and hills tourism in Ekiti State. It was carried out to gain an insight into the various mountains and hills domiciled in some selected communities of the State and how these could be grouped together for development and easy accessibility to potential visitors and tourists to Ekiti State. The government of Ekiti is fully aware that the State is dotted with potential of mountains and hills that could be used for tourism development in Ekiti State. And, that some of them have amiable features such as spring water, water falls, beautiful vegetation and topography, serene environment, cool temperature that can attract tourists to the State.

The following recommendations are suggested for policy makers and all participants in mountains and hills tourism development in Ekiti State; The government should be made to provide adequate funds for massive infrastructural facilities in all the communities where mountains and hills are domiciled most especially the proposed headquarters for the cluster of mountains and hills tourism to enable potential visitors and tourists get comfort and values for their participation in mountains and hills tourism in Ekiti State. There should be effective collaborative networking among mountains and hills investors for the marketing of cluster of mountains and hills destinations in Ekiti State as soon as the operation begins. There is need to market the resources of mountains and hills, and put in place public information on mountains and hills facilities that may be ill-conceived to contradict religious belief of some tourists and visitors.

> **Funding:** This study received no specific financial support. **Competing Interests:** The authors declare that they have no competing interests. **Acknowledgement:** All authors contributed equally to the conception and design of the study.

REFERENCES

- Britannica Encyclopedia. (2020). Mountain definition, characteristics and types. Retrieved from: www.britannica.com>science>mo. [Accessed August, 10th, 2020].
- FAO. (2016). Food and agricultural organization of the United nations. Retrieved from: <u>www.fao.org</u>. [Accessed 2nd March, 2020].
- GIS and RST. (2019). Image analysis. Management, and organization. Retrieved from: <u>www.esri.com.products.overview</u>. [Accessed 2nd September, 2020].
- Mandy, B. (2013). Tourism on mountains. Retrieved from: www.mandybarrow.com. [Accessed March, 10th, 2020].
- Merriam Webster Dictionary. (2020). Definition of mountain. Retrieved from: <u>www.merriam.webster.com.mount</u>. [Accessed 5th September, 2020].
- Mountain Vacation Packages. (2020). Deals on outdoor vacations. Retrieved from: <u>www.hotwire.com>mountains</u>. [Accessed 21st April, 2020].
- Owolabi, J. T. (2019). Georaphical analysis of Ekiti. Retrieved from: www.usa.journal.com. [Accessed 9th September, 2019].
- Oxford Dictionary. (2019). Mountain ranges. Retrieved from: <u>www.wikipedia.org>wiki>mountain</u>. [Accessed 10th September, 2020].

- Steven, M., Dudley, B., Melinda, K., & Eric, F. (2015). Geographic information system and remote sensing. Retrieved from: www.researchgate.net. [Accessed 25th May, 2018].
- Taher, S. H. M., Jamal, S. A., Sumarjan, N., & Aminudin, N. (2015). Examining the structural relations among hikers' assessment of pull-factors, satisfaction and revisit intentions: The case of mountain tourism in Malaysia. Journal of Outdoor Recreation and Tourism, 12, 82-88.
- UNWTO. (2016). UNWTO tourism highlights, 2016 edition. Retrieved from: http://www.eunwto.org/doi/book/10.18111/9789284418145. [Accessed Tuesday, January 9th, 2018].
- UNWTO. (2019). Rural and mountain tourism. Retrieved from: <u>http://www.unwto.org/rural-mountains-tourism</u>. [Accessed 8th August, 2020].

Views and opinions expressed in this article are the views and opinions of the author(s), Journal of Tourism Management Research shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.