

# THE IMPACT OF CLIMATE AND SOCIO-ECONOMIC FACTORS ON TOURISM PARTICIPATION IN NIGERIA

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## **Abstract**

This paper examined the impact of climate and socio-economic factors on tourism participation in Nigeria. Tourism participation data were collected from six randomly selected tourist centers where data were available for at least 10 years. Exactly 1500 questionnaires were administered to solicit opinions on tourism participation. Statistical tools employed in analyzing the data include percentages, chi-square, correlation and regression analysis. The results show that the most visited tourist sites were Okomu National Park, Okomu (86%), source of River Ethiope Umuaja (84%) and Ethiope River Resort, Abraka (81) while the most preferred tourist sites were Yankari Game Reserve, Bauchi (94%), Koma Village, Koma (93%), and Lake Chad (92%) among others. The nearer the tourist sites the greater the participation rate and the farther the tourist sites the more the preference. Tourism Participation was highest during the dry season and rainy season among Nigerians and Foreigners respectively. Tourism participation was found to be highest among the middle income earners, highly educated (>B. Sc.), late adults (41-65) and the males. Temperature ( $r = 0.756$ ) and sunshine ( $r = 0.582$ ) influence tourism participation most and they were statistically significant at  $P < 0.05$ . In the regression model, temperature alone explained 67% of all the factors enhancing tourism participation while rainfall ( $r = -0.860$ ) was removed from the regression model showing its detrimental effects on tourism participation as also revealed by 78% of the respondents. Other top constraints to tourism participation include distance (86%), low income (84%) and lack of awareness of tourist sites (81%). Incentives and liberalization policies of the Federal and State governments for tourism development were highlighted and recommendations were made for appropriate development of tourism industry in Nigeria. Key Words: Tourism participation, Tourism Preference, Climate, Privatization and Yuletide.

## **Introduction**

The International Association of Science Experts in Tourism (AISET) in 1976 defined tourism as the sum of the phenomena and relationship arising from travel and stay of non-residents, in so far they do not lead to permanent residence and are not connected with earning activities. Establishing the characteristics of tourism, Greg (1994) stated that tourism arises from temporary and short-term character movement of people to, and their stay in various destinations. Tourism is of two facets - international and national or domestic.

Ukutt (2002) and Bunonyo (2003) showed that tourism does not encompass only holiday makers but it also embraces diplomats, naturalists, religious pilgrims, sports and delegates amongst others provided their movement is consumption oriented. In whichever form tourism takes, certain factors predispose its meaningful development as noted by Robinson (1976) who ranked them as follows: good weather, amenities, accommodation, accessibility, scenery, beaches and interest features. Good or favourable weather condition is indispensable in tourism development because, man and his activities are under the vagaries of weather and climate. This shows that the level of man's achievement in tourism industry could be either enhanced or marred by the prevailing weather or climatic condition.

Some areas of tourism have been researched into. For example, the perception of, and trends in recreation and tourism development in Nigeria (Ojo 1978; Obakpi 2000; Ahmed, 2002; Dibiagu, et al. 2003). The structure of domestic tourism and the relationship between environment and tourism development have been assessed by (Awaritefe, 1993; Chokor, 1993; [Cure, 2002; Nwokolobia, 2003). Moreover the economic and social benefits along side the problems of international tourism

development were reviewed by (Didimakon.1997: Onu, 2001; Wakama, 2002; Ihebinike, 2003; Dankumbo. 2004).

It is obvious that some works have been done on the socio-economic and environmental aspects of tourism development in Nigeria but none (to the best of author's knowledge) has ever looked at the impact of weather and climate on tourism participation in Nigeria. It is on this premise that the paper seeks to identify the rich and diverse tourist potentials of Nigeria and showcase them to the international world for visitation and investment. It will also analyse the impact of climate and socio-economic factors on tourism participation.

## **Materials and Method**

The names of the most developed 20 tourist centres in Nigeria were written and placed in a box and from there, six were randomly selected. Mean monthly tourism participation (Domestic and international) data for 10 years (1995-2004) were collected from the six tourist centres (Source of River Ethiope, Umuaja; Ikogosi Warm Spring, Ikogosi; Okomu National Park, Okomu; Yankari Game Reserve, Bauchi; Assop Falls, Jos and Obudu Cattle Ranch, Obudu). Climatic data (Rainfall, temperature and sunshine) were collected from the six states (Delta, Ekiti, Edo, Bauchi, Plateau and Cross Rivers) where tourism participation data were gathered. To identify the tourist sites in Nigeria, 500 open-ended questionnaires were randomly administered to inhabitants of Benin City (6°20'N, 5 37'E), Ekpoma (6° 45'N, 6 07'E) and Auchi (7° 04'N, 6 15'E). Based on this, the final questionnaire was prepared. To solicit the opinions of the respondents on tourism participation 1500 questionnaires were administered randomly to people in three largest cities in Edo State (Benin City, Ekpoma and Auchi). At Benin City, Ekpoma and Auchi, 600, 480 and 420 questionnaires were administered. This variation is based on the size and population of the cities.

Each of the cities was divided into three zones (Low, moderate and high residential), based on the works of (Ikhide, 2002; Osakpanmwan, 2003). In each zone, the streets were listed and 15 streets were randomly selected. Employing the systematic random sampling technique, every fourth building was selected for questionnaire administration. However, if the fourth building is uninhabitable, the next dwelling building was selected. In each building, a questionnaire was administered but, if there are more than one householder in the building, one of them was randomly selected. At Benin City, 40 questionnaires were administered in each street, while there were 32 and 28 in Ekpoma and Auchi respectively. However, some selected streets were too small to take the questionnaires met for the street, in such situation, the questionnaire administration spilled over to the next street.

Statistical tools employed were percentages, chi-square, correlation, and regression analysis. The tourist sites visited were mapped out to acquaint prospective tourists and investors their location and to explain the impact of distance on tourism participation. Percentage and correlation were employed to rank and to draw the relationships between tourism participation and preference. The variations in tourism participation among the socio-economic variables (age, income, education and sex) and climatic variables (temperature, rainfall and sunshine) were analysed to determine whether the differences are statistically significant using the Chi-square. To show statistically which of the variable(s) actually explain tourism participation in Nigeria, the stepwise regression analysis was employed.

## **Results and Discussion**

### **Tourism Sites and investment opportunities**

Table 1 and figure 1 show though, not exhaustively, the rich and diverse tourism resources of Nigeria. All aspects of tourism interests or resources are available in Nigeria. These interests include; alluring game reserves, wildlife and parks, fascinating coastal beaches, heritage, historical and cultural phenomena and refreshing scenic mountainous features like waterfalls, springs, caves and naturally sculptured rocks.

Despite these abundant tourism potentials, Nigeria tourism industry is still in its infancy stage when compared to other countries in Africa and the world. In Africa, South Africa, Kenya, Zambia, Uganda, Zimbabwe, Tanzania and Madagascar were rated highest in tourism development and Nigeria is not among the highest 10 countries of international tourist arrivals (Rapu, 2004). Although tourism is either the second or third largest foreign exchange earners for more than 10 African countries (South Africa, Uganda, Kenya etc) accounting for more than 7% of their GDP, Nigeria

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tourism industry accounted for less than 1% with crude oil holding about 80% (Rapu, 2004). The World Travel and Tourism Council (WTTC) ranked Nigeria to be in the 56<sup>th</sup> position out of 174 countries in absolute tourism size world-wide but, 127<sup>th</sup> position in relative contribution to her national economic and 145<sup>th</sup> in long-term growth (Uche and Ochei, 2003).

This abysmally low performance of Nigeria tourism industry despite its rich and diverse tourism resources could be attributed to placing emphasis only on the oil industry and total neglect of the tourism sector. Other reasons are political instability in the country before 1999 when the military were still in power (Uche and Ochei, 2003) and those impediments to tourism development listed in table 5. The Nigerian government has since 2001 tried to diversify her economy and the priority sectors are ranked as agriculture, industry, tourism and mining among others (Ihebinike, 2003).

To attract investors to the tourism sector, the following incentives among others were put in place and they include tax holidays, longer years of moratorium and import duty exception on tourism related equipment, facilitation of land acquisition through the issuance of certificate of occupancy for tourism development at concessional rates. In this vein, some state governments like Cross River and Lagos States among others have provided specific areas as tourism development zones thereby \_ making acquisition of land easier. The provision of infrastructures such as good roads, water, electricity and communication to tourism sites and zones are other incentives promised.

To boost the tourism industry, the Federal Government of Nigeria in 2001 released a bulletin inviting both foreign and domestic investors to come and invest in the abundant tourism potentials in the country. The investment opportunities in the bulletin as shown in Uche and Ochei (2003) are as follows

1. Heritage/cultural tourism resources development of slave trade relics.
2. Establishment of museums and preservation of monuments.
3. Wildlife tourism resources.
4. Development of hiking trails and Jeep tracks in the national parks.
5. Development of picnic and camping sites at strategic locations within the trail circuit system in the national parks.
6. Building of tourist lodges.
7. Building of recreation centers at natural/physical attractions
8. Provision of cable bus system to take tourists through the very rugged but scenic terrain of the mountains especially Obudu, Adamawa, Mambila and Jos Plateaux. Construction of lodge cabins for expedition tourist and rangers.
9. Establishment of hotels and holiday resorts near refreshing waterfalls, springs, caves and coastal beaches.
10. Establishment of boating and sport fishing facilities.
11. Provision of educational facilities for water skiing and swimming.
12. Development of amusement parks, entertainment facilities and shopping services.
13. Development of arts and crafts, which constitutes symbol of the people's cultural, values and love for nature.

Tourism investment atmosphere in Nigeria is now conducive given the abundant resources available, large market, existing enduring democracy, a package of incentives and liberalisation policies put together by both the State and Federal governments. Foreign and local investors should take these advantages to invest in the Nigerian tourism industry for sustainability and profitable returns.

#### Socio-Economic Factors and Tourism Participation

Table 1 shows the tourist centres visited and preferred. Topping the list of tourist centres visited were Okomu National Park (86%), source of Pdver Efthiope (84%), Ethiope River resort (81%), Udo tourist centre (80%) and Lagos bar beach (80%) while the least visited were Koma village (2%), Lake Chad (4%), and Ampara ancient iron smelting (5%). Topping the list of the most preferred -tourist centres include Yankan Game Reserve (94%), Koma Village, (93%), Lake Chad (92%) and Obudu Cattle Ranch (91%). The location of these centres in fig. 1 reveals the fact that the farther the distance the lower the visitation and the more the preference. A negatively significant ( $p < 0.01$ ) correlation between tourist centres visited and preferred ( $r = -0.739$ ) is an indication of wide variation between the current participation rate and what their choice would have been if money and time are

not limiting factors. An  $X^2$  value of 22.87 further confirms the fact that the difference between participation rate and preference is statistically significant at  $p < 0.01$ .

The impact of distance on tourism participation and preference is clearly depicted in table 2 and figure 1. While 43% of the respondents visited tourist centers within 250 km radius of Benin City, the number dropped to 38% (500 km), 11% (750 km), 6% (1000 km) and 2% (1250 km)- The computed  $X^2 = 17.4$  shows that distance significantly reduces the rate of tourism participation at  $p < 0.01$ . The preference on the other hand increased from 5% (250 km) to 32% (1250 km) (Table 2). None of the respondents has traveled out of the country for tourism visitation while 98% prefer seeing tourist attractions outside the country's borders. Obakpi, (2000), and Idachaba, (2004) also showed that distance is a major impediment to tourism participation in Western and Eastern Nigeria respectively. Mosumba (2003) had similar result in Kenya.

The middle income earners with monthly salary of N 18,001-50,000 had the highest tourism participation (47%) followed by the high income earners (>N50,001) (40%) and low income (<N 18,000) was only 13%. The high participation rate of the middle and high income earners clearly demonstrates that the more affluent members of society are the greater their taste for participation in tourist activities. Income had  $X^2$  value of 6.36 showing that the difference in tourism participation is significant at  $p < 0.05$ . Balasabramainam (2000) and Nwokolobia (2003) showed that the poor had the lowest tourism participation rate in South Africa and Bauchi State of Nigeria respectively.

Among the age groups, late adult (41-65 years) had the highest tourism participation of 32%. This is followed by middle adult (26-40 years) 24%, adolescence (12-18 years) 22%, young adult (19-25 years) 12% and old age (> 65 years) 10%. The late and middle adults who indicated high participation rate could be attributed to their high financial status, disposable income and increased mobility because, majority of them are employed with good salaries, wages and personal vehicles to ease movement. Dependency, unemployment, infirmity and ill - health were some of the reasons for low patronage by the old age group. The difference in tourism participation among the various age groups  $X^2 = 16.82$  is statistically significant at  $p < 0.01$ . This implies that age actually affects the rate of tourism participation. This agreed with the findings of Idachaba (2004) which revealed that age was a dominant factor affecting tourism participation among the rural dwellers in eastern Nigeria. Buadi and Amatasino (2002) also revealed in Ghana that the aged not only had very low tourism patronage rate but prefer shorter distance tourist centers.

Educationally, the highest tourism participation was recorded by those who had university education and above (>B.Sc.) 42%, followed by the post secondary (OND and NCE) (31%), secondary (19%) and primary (8%). This clearly indicates that participation rate in tourism increases with increasing educational attainment. This is not surprising because Onu (2001) and Bunonyo (2003) had earlier noted that education leads to enlightenment, environmental awareness and appreciation for natural, social and cultural features. The differences in tourism participation due to educational attainment ( $X^2 = 16.01$ ) is statistically significant at  $p < 0.01$  level. This agreed with the work of Bunonyo (2003) in the Niger Delta region of Nigeria.

Tourism participation was higher among the male respondents (61%) than the females (39%). The difference in tourism participation among the sexes ( $X^2 = 10.4$ ) is statistically significant at  $p < 0.01$  level.

#### Climate and Tourism Participation

Nigeria experiences a hot humid climatic condition with two distinct seasons, the rainy (April-October) and dry season (November to March). While the southern Nigeria enjoys both equatorial and subequatorial climate with mean monthly air temperature range of 25-27°C, that of the northern Nigeria is tropical savannah climate with mean air temperature range of 27-32 C. The high mountains (Adamawa and Obudu) and plateaux (Jos and Mambila) experience a climatic condition similar to that of warm temperate climate where mean monthly air temperature ranges between 15 and 22°C. Therefore, the choice is there for tourists to patronize either the dry or rainy season period, hot humid or warm temperate-like conditions.

As shown in figures 2a and 2b, there is an evidence of tourism participation throughout the year in Nigeria. However, a sharp contrast between tourism participation rate among the local and international (foreign) tourists with respect to climate is noticed. Visitations to tourist centers were more (61%) during the dry season months (November to March) among the domestic tourists, while

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the rainy season months (April - October) recorded the highest visitation (76%) among the foreign tourists. This implies that tourism industry in Nigeria can flourish throughout the year if well developed. While local tourists patronize tourist industry during the dry season, the international tourists will patronize the rainy season period, which corresponds to their summer holiday period. The summer period (June-July) in the temperate zone which corresponds with the peak of rainy season in Nigeria, accounted for about 40% of their all - year - round visitations of the international tourists. The Nigerian Investment Promotions Commission showed that the top five international tourist destinations in Nigeria are the Obudu cattle ranch, Yankari game reserve, Lake Chad, the Riyom and Shere hills and Badagry whispering Palms (Idachaba, 2004). These centers are actually the most developed tourist sites in Nigeria. This implies that if all the tourist sites are given the needed development, Nigeria will be a better place for holiday seekers. Although tourism patronage is highest during the dry season among the local tourists, the outstanding increase in the months of December, January and April (Figures 2a and 2b) could not only be attributed to dry, sunny weather, but also to the effect of Christians festivities such as the Yuletide and Easter holidays.

The correlation result shows that temperature ( $r = 0.756$ ) and sunshine ( $r = 0.582$ ) were positively and significantly correlated with domestic tourism at  $p < 0.01$  and  $p < 0.05$  respectively (Table 3). On the other hand, while rainfall had negative and significant ( $p < 0.01$ ) correlation with domestic tourism ( $r = -0.860$ ) that of international tourism ( $r = 0.678$ ) is positive and significant at ( $p < 0.05$ ). In the regression model, both climatic (temperature, rainfall and sunshine) and socioeconomic variables (Age, income, sex and education) were entered and analysed. The result shows that temperature alone explained 67% of all the variables that affected tourism participation (Table 4). Other variables that entered the regression model include sunshine and income. These three variables (Temperature, sunshine and income), had a correlation of  $r = 0.96$  and explained 92% of tourism participation. Rainfall was removed from the regression model indicating its detrimental effects on tourism patronage especially the domestic tourism. This result is similar to that of Dibiagu et al. (2003), which indicated that in the Jos Plateau region of Nigeria, tourism patronage was highest during the sunny dry season months than the rainy season.

Figure 3 shows the temporal variation of tourism participation in six tourist sites in Nigeria since 1995. There has been a steadily but very slow increase in both domestic and international tourism patronage in Nigeria. The total tourists that visited the six tourist sites under investigation grew from 58,064 in 1995 and 157,997 in 2004. The volume of patronage in 2004 was almost three times that of 1995. There was a general decline in the trend of both international and domestic tourism participation in the year 1999. This might be connected to the uncertainty of security in the pre and post 1999 general elections in Nigeria. As from the year 2000, the increase in domestic tourism becomes sharper. This could be mainly due to the nation-wide increase in salaries in 1999 and the privatization programme of both the Federal and State Governments. The increase in salaries means more income for holiday seekers. The privatization programme has led to slight improvement in the organization and provision of services in some tourist sites, which must have attracted more tourists since the year 2000 (Fig. 3).

### **Constraints and Benefits of Tourism Industry**

The greatest constraint to tourism participation in Nigeria as shown in table 5 is the distance barrier (86%). The current high cost, of living and low income (84%) worsen the participation rate. Majority of the respondents (81%) did not know the location of most of the tourist centers while the few known are not developed (80%). Since most roads to tourist centers are not tarred (77%). poor weather or rainfall (78%) makes accessibility to the centers difficult bearing in mind the remote nature of some of these centers. All these factors and others in table 5 drastically impaired tourism participation in Nigeria. Awaritefe (1993), Obakpi (2000) and Ukutt (2002) also identified some of these constraints to be limiting factors to tourism development in different parts of Nigeria.

Respondents showed that the above problems could be solved and tourism industry in Nigeria will flourish only if the government policies could invariably reduce the current high cost of living (96%), employ more people (91%) and create enabling environment for individuals and corporate organisations to develop the tourist industry (88%). Construction of good roads to the tourist centres (86%), provision of tourism inventory (85%), up to date facilities in tourist centres (82%) manned by

well qualified tourist personnel (80%) among others (Table 6) will make for full realisation of benefits tourism provides as shown in table 7.

Tourism industry is labour intensive and will provide job opportunities (Direct or indirect) to many as revealed by 94% of the respondents (Table 7). Job created will undoubtedly enhance their income and standard of living (91%). At the time of this study, the six tourist sites used for this study had direct employment for 581 people. One could now appreciate the volume of employment tourism would provide if all the identified tourist sites are developed to the fullest capacity. Tourism also results in the development of the rural areas (86%), by providing social amenities (90%), which attract other allied industries. For instance, the establishment of Gossy table water industry by Ikogosi warm spring, Ikbgosi, has not only employed indigenes of Ikogosi, but also acted as a major force behind the construction of the tarred road to Ikogosi village and constant electricity supply in the area. These without doubt help to check rural-urban migration as revealed by 85% of the respondents. It is clear now that tourism development actually favours marginal and peripheral regions, which are the very areas that need mostly an injection of economic capital. In line with these findings, Awaritefe (1993) and Uche and Ochei (2003) suggested that the best solution to tourism development in Nigeria is to improve the living standard of the people, take inventory of tourist sites and create awareness in the people about the benefits of tourism participation and development.

### **Recommendations and Conclusion**

The paper identified 105 tourist sites in Nigeria and observed that the most visited tourist centres were the least preferred while the most preferred were the least visited. It is also observed that the farther the distance of tourist centre, the lesser the tourism participation but the more the preference. Apart from distance, education, income, sex and age significantly affected the rate of tourism participation. Although, tourism participation flourishes throughout the year, it is observed that while dry season favours domestic tourism, international tourists visited Nigeria more during the rainy season (their summer period). The combination of these contrasting favourable seasons provides better opportunity for all-year- round tourism industry in Nigeria. Although tourism patronage was highest during the dry season, the outstanding increase in December, January and April months was enhanced not only by the dry, sunny weather but also by the effects of Christian festivities of Yuletide and Easter. Temperature, sunshine and income were the main contributing factors to domestic tourism participation in Nigeria since they had a correlation of  $r = 0.96$  and explained 92% of all the factors affecting tourism participation in Nigeria.

Distance barrier (86%), high cost of living/low income (84%), lack of well developed tourist sites (80%) and poor weather (78%) were the major constraints to tourism participation in Nigeria while job opportunity (94%), higher income/standard of living (91%), provision of social amenities / services (90%) and development of rural areas (86%) were the most outstanding benefits of tourism development in Nigeria.

For full development and utilization of tourism potentials in Nigeria, proper planning is needed to take care of weather and socio-economic factors limiting the tourism industry. This calls for closer collaboration between tourism developers on one hand and the meteorological agency on the other for weather data, forecasts and predictions. Government should not only improve the standard of living of the people but also reduce their cost of living so that they can have enough money for tourism patronage. Government should only provide enabling environment for tourism developers but not be involved directly in the day to day operations of the tourism industry. This is because of the Nigerians' poor attitude towards effective handling of government properties. Regional tourist sites development should be encouraged. Tourist may not be so keen in traveling long distance to see only one tourist site. However, if there are so many developed tourist centers in a region, the tourist will be highly delighted to visit. The very low participation rate of international tourists is a reflection of poorly developed tourist centers in Nigeria. To attract foreign tourists, the tourist centers should be well developed to meet international standards and be manned by qualified personnel. With the current liberalization policy and incentives put in place, it is hoped that Nigeria will soon be the haven of not only tourists' visitation but also investment. So, Nigeria tourism industry beckons to the entire world, come, explore and invest in Nigeria.

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Table 1: Tourist Sites Visited and Preferred \_\_\_\_\_

S/N	Tourist Sites	Visited (%)	Preferred (%)
1	Okomu National Park, Okomu, Edo State	86	20
2	Source of River Ethiope, Umuaja, Delta State	84	34
3	Ethiope River Resort, Abraka, Delta State	81	32
4	Udo Tourist Centre, Udo, Edo State	80	18
5	Bar Beach, Lagos, Lagos State	80	84
6	Lander Brothers Anchorage, Asaba, Delta State	78	31
7	Nigerian Port Authority, Warri, Delta State	76	5
8	National Stadium, Lagos, Lagos State	75	2
9	Nigeria Institute For Oil Palm Research, Ugbojobo, Edo State	74	6
10	Songai, Sapele, Delta State	72	38
11	Watch Tower Headquarters, Igeduma, Edo State	71	32
12	Delta Steel Complex, Warri, Delta State	71	4
13	Osoyo Hills, Osoyo, Edo State	70	43
14	Ogorode Power Station, Sapele, Delta State	68	2
15	Ikogosi Warm Spring, Ikogosi, Ekiti State	64	10
16	Ologbo Game Reserve, Ologbo, Delta State	62	14
17	Edegbake Cave, Fugar, Edo State	60	34
18	NNPC, Warri, Delta State	56	4
19	Eleko Beach, Lagos, Lagos State	54	56
20	Idanre Hills, Ondo State	51	64
21	Badagry Wispering Palms, Badagry, Lagos State	50	10
22	Obudu Ranch, Obudu, Cross River State	49	91
23	Enugu Coal Mine, Enugu State	48	46
24	Rolling Hills, Okigwe, Imo State	44	66
25	Lekki beach/conservation Centre, Lagos, Lagos State	43	85
26	Obasanjo Farm, Otta, Ogun State	43	51
27	Confluence Town, Lokoja, Kogi State	41	56
28	Oloibiri Oil Drilling Relics, Bayelsa State	40	53
29	Palm Beach Tourist Village, Avvomama, Imo State	40	65
30	Zuma Rock, Suleija, FCT	39	64

Table 5: Constraintsjjfjrojfism\_Participation

Constraints	Rank (%)
Distance barrier	86
High cost of living / low income	84
Lack of awareness (inventory) of tourist sites	81
Lack of well developed tourist sites	80
Poor weather (Rainfall)	78
Bad roads to tourist sites	77
Poor organisation and services at tourist sites	76
Time factor (Personal engagement/official duty)	76
Location of tourist centres	72
Inadequate facilities in tourist sites	70
Poor public opinion about tourism	67
High cost of accommodation in standard hotels	66
Lack of qualified personnel in tourist sites	66
Lack of encouragement by governments	65
Lack of accommodation in tourist sites	64
Unemployment/underemployment	62
Stress of long tour	61
Educational background	60
Cultural/language barriers	59
Limited leave period	56
Religious/civil intolerance	54
Lack of interest	51

Source: Fieldwork, 2004

Table 6: Solution to Tourism Constraints

Solution	Percentage (%)
Government reduction in high cost of living	96
Provision of employment	91
Government creation of enabling environment for individuals and corporate tourism developers	88
Construction of good roads to tourist centres	86
Provision of tourism inventory	85
Provision of up-to-date facilities in tourist sites	82
Qualified personnel in tourist sites	80
No direct government involvement in the day to day operations of tourist centres	74
Public awareness on the relevance of tourism participation	73

Source: Fieldwork, 2004

Table 7: Benefits of Tourism Development

Benefits	Rank (%)
Job opportunities	94
Higher income / standard of living	91
Provision of social amenities / services	90
Development of rural areas	86
Checking rural/urban migration	85

31	Oghodoghodo Cave, Fugar, Edo State	39	26
32	Benin Wall/Moat, Edo State	38	8
33	Mary Scellesor's Cottage, Calabar, Cross River State	37	46
34	International Airport, Lagos, Lagos State	36	23
35	Ipole Iloro Water Fall, Ondo State	35	63
36	Ogba Zoo, Benin City, Edo State	33	6
37	Ogbunike Cave, Onitsha, Anambra State	33	60
38	Ibadan Museum, Oyo State	32	15
39	Osun Shrine/Festival, Osun State	31	42
40	Olumo Rock, Abeokuta, Ogun State	31	50
41	National Museum, Lagos, Lagos State	30	43
42	Badagry Slavery Site, Badagry, Lagos State	28	62
43	Erimo Fall, Ondo State	26	74
44	Agbokin/Kwa Falls, Cross River State	26	68
45	Ezeagu Tourist Complex, Enugu State-	26	65
46	Pine Forest Reserve, Enugu State	26	55
47	National Museum, Benin City, Edo State	26	24
48	Oranmiyan Staff/Ooni of Ife Palace. He Ife, Osun State	25	16
49	I. I. T. A. Ibadan. Oyo State	25	51
50	Egungun Festival, Ogun State	24	56
51	Eyo Masquerade / Festival , Lagos, Lagos State	24	60
52	Ife Museum, Osun State	24	20
53	Bacita Sugar Industry, Kwara State	23	62
54	Blue River Tourist Village, Abia State	23	51
55	New War Museum, Umuahia, Imo State	22	62
56	Arochukwu Cave/Shrine, Arochukwu, Abia State	22	70
57	Savannah Sugar Factory, Numari, Adamawa State	21	77
58	Sheraton Hotel, Abuja, FCT	21	80
59	Borgu Game Reserve, Niger State	21	84
60	Opi Lakes, Opi-Agu, Enugu State	20	74
61	Oguta Lake, Imo State	20	62
62	Awolowo Tomb, Ikenne, Ogun State	20	14
63	Kainji Dam, Niger State	20	65
64	Kazuure Rock Ranges, Kano State	19	70
65	Ampang Crater Lake, Ampang, Plateau State	19	87
66	Kerang Crater and Volcanic Cones, Kerang, Plateau State	19	84
67	Wildlife Park / Zoo, Jos, Plateau State	18	81
68	Pandam Lake / Tourist site, Plateau State	18	83
69	Mungo Park's Cenataph, Niger State	18	62
70	Erin-Ijesa Waterfalls, Osun State	18	71
71	International Airport, Kano, Kano State	18	53
72	National Museum, Jos, Plateau State	17	78
73	Rogeny Tourist Village, Oba, Anambra State	17	74
74	Gurara Falls, Niger State	16	64
75	National Stadium, Abuja, FCT	14	70
76	Tine Mine Dunes/Lakes, Plateau State	13	90
77	Tiga Dam, Kano State	12	69
78	Owu Waterfalls, Kwara State	12	80
79	Opobo Boatyard, Akwa Ibom State	12	65
80	Veterinary Research Institute, Vom, Plateau State	11	82
81	Katsina Walls, Katsina State	11	74
82	Riyom/Wase Rocks, Jos, Plateau State	11	84
83	Sherre Hill, Plateau State	10	90
84	Legendary Lord Lugard Bridge, Kaduna State	10	72

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85	Zamfara Game Reserve, Zamfara State	10	86
86	Kano Wall, Kano State	8	86
87	Sokoto River Hills, Sokoto State	8	89
88	Shtroro Dam, Niger State	8	62
89	Assop Falls, Plateau State	7	86
90	Rayfield Holiday Resorts, Jos, Plateau State	7	91
91	Sir Abubakar Tafawa Balawa Tomb, Bauchi, Bauchi State	7	20
92	Kura Falls / Power Station, Plateau State	6	77
93	Yankari Game Reserve, Bauchi State	6	94
94	Argungu Fishing Festival, Kebi State	6	90
95	Three Sister's Hills, Adamawa Mountains, Adamawa State	6	74
96	Danfuna Canoe, Damaturu, Yobe State	6	82
97	Kwaimbara Game Reserve, Sokoto State	6	89
98	Kyarimi Park, Borno State	6	82
99	Nok Culture, Kwoi, Kaduna State	6	71
100	Gashaka Game Reserve, Taraba State	6	76
101	Ngeji Warm Spring, Borno State	5	78
102	Mambila Plateau, Taraba State	5	82
103	Ampara Ancient Iron Smelting Furnaces, Bauchi State	5	86
104	Lake Chad, Borno State	4	92
105	Koma Village, Taraba State	2	93

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Source: Fieldwork, 2004

Table 2: Distance and tourism participation/preference

Distance (Km)	250	500	750	1000	1250
Participation (%)	43	38	11	6	2
Preference (%)	5	13	28	28	32

Source: Fieldwork, 2004.

Table 3: Relationship Between Climatic Elements and Tourism Participation

	Temperature	Rainfall	Sunshine	Domestic	International
Temperature	1.000				
Rainfall	-.703*	1.000			
Sunshine	.681*	-.607*	1.000		
Domestic	.756**	-.860**	.582*	1.000	
International	-.360	.678*	-.600*	.582*	1.000

\* = Significant at  $p < 0.05$  \*\* =

Significant at  $p < 0.01$

Table 4: Regression Result on climatic and Socio-economic Variables and Tourism Patronage

R (Correlation coefficient)	R <sup>2</sup> (Level of Explanation)
0.756a	67
0.91b	86
0.96c	92

a = Temperature      b = a + Sunshine      c = a + b + Income

Government source of revenue	83
Leisure time	82
Reduction of stress	82
Better environmental knowledge	81
Increased sales of local commodities	80
Socio-cultural/moral integration and development	77
Increasing knowledge of traditional / cultural values and heritage	76
Opening of research opportunities	74
Easy flow of information	73
Friendship with strangers/increasing unity	72

Source: Fieldwork, 2004

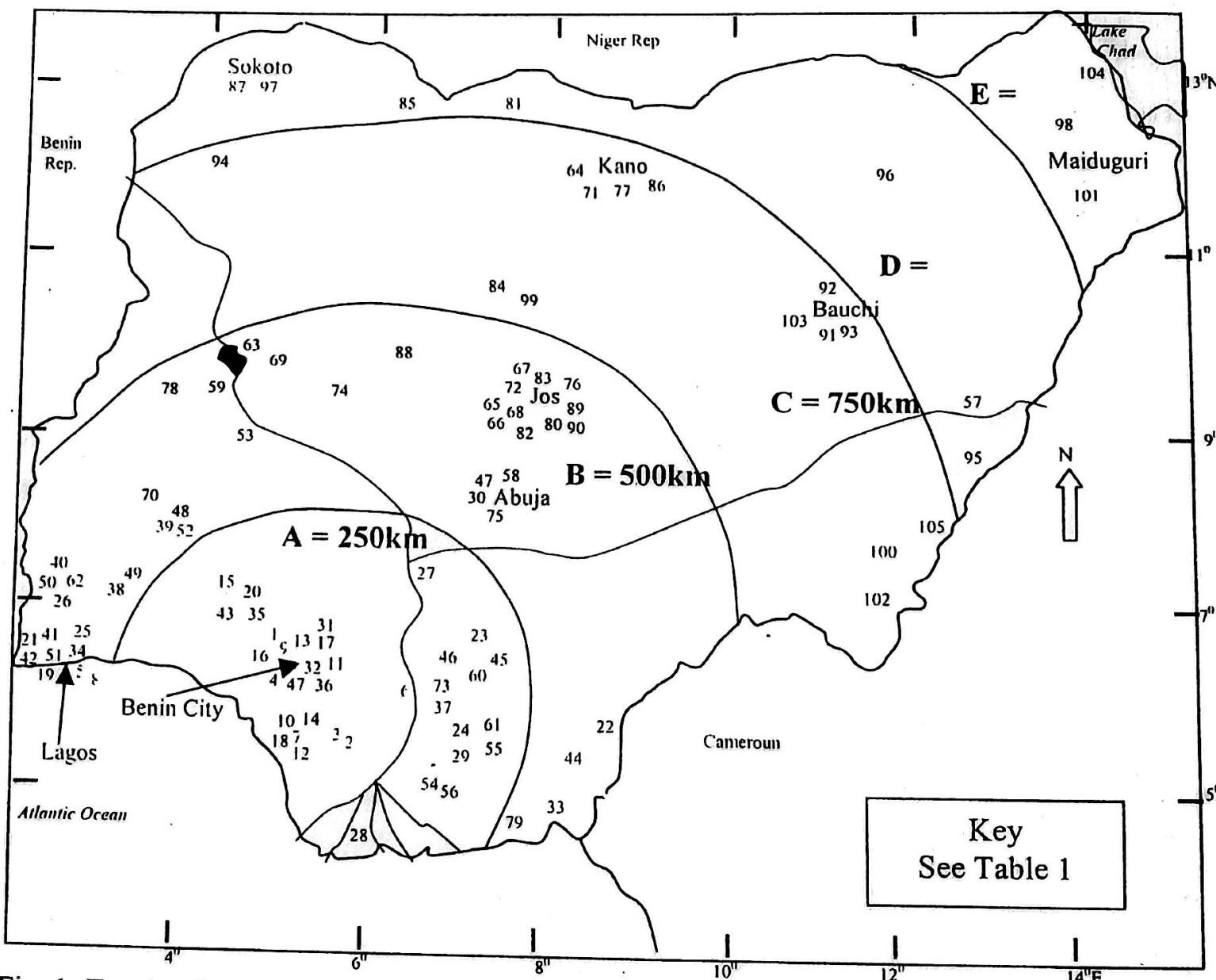


Fig. 1: Tourist sites visited

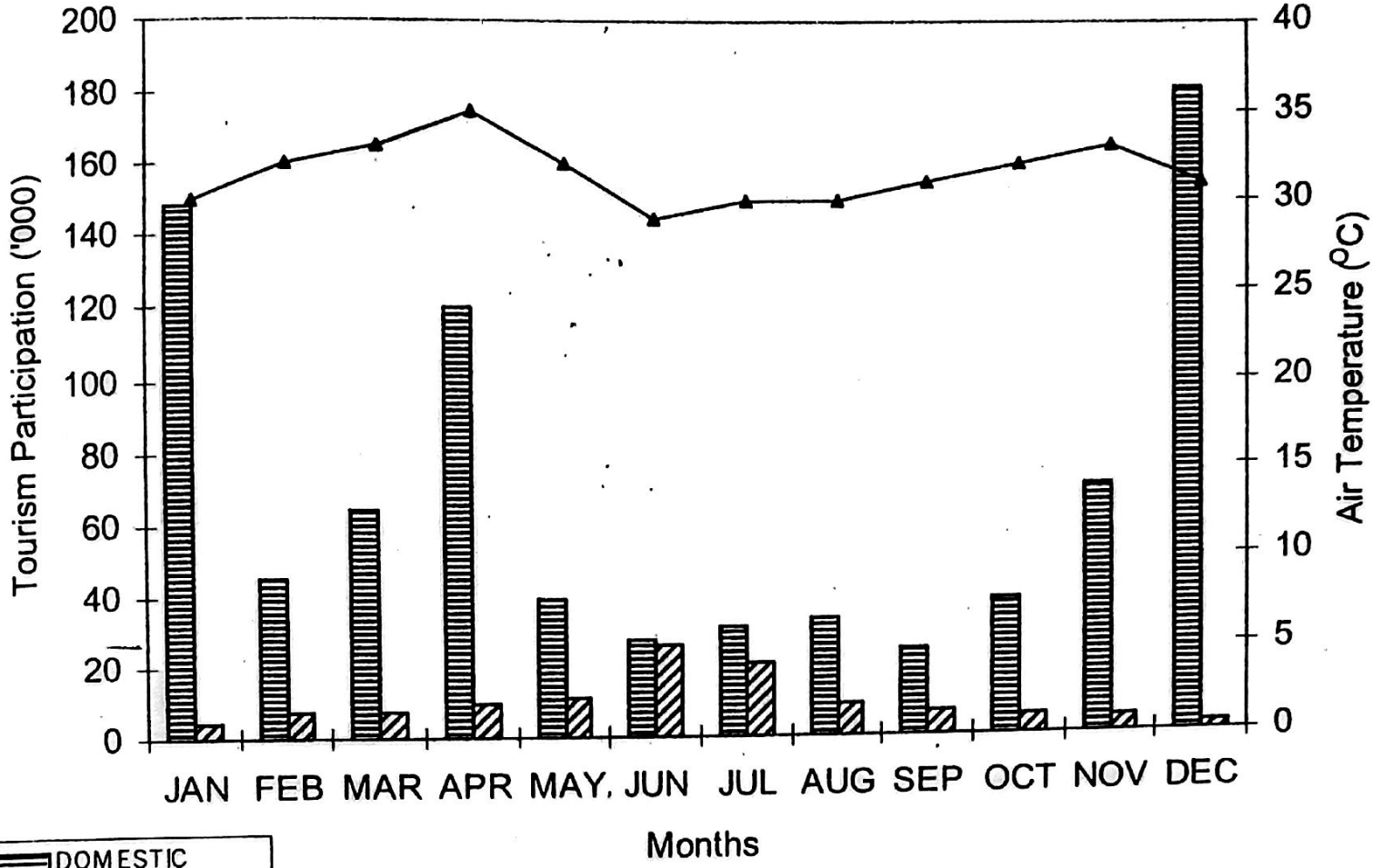


Fig.2a: Impact of Temperature on Tourism Participation

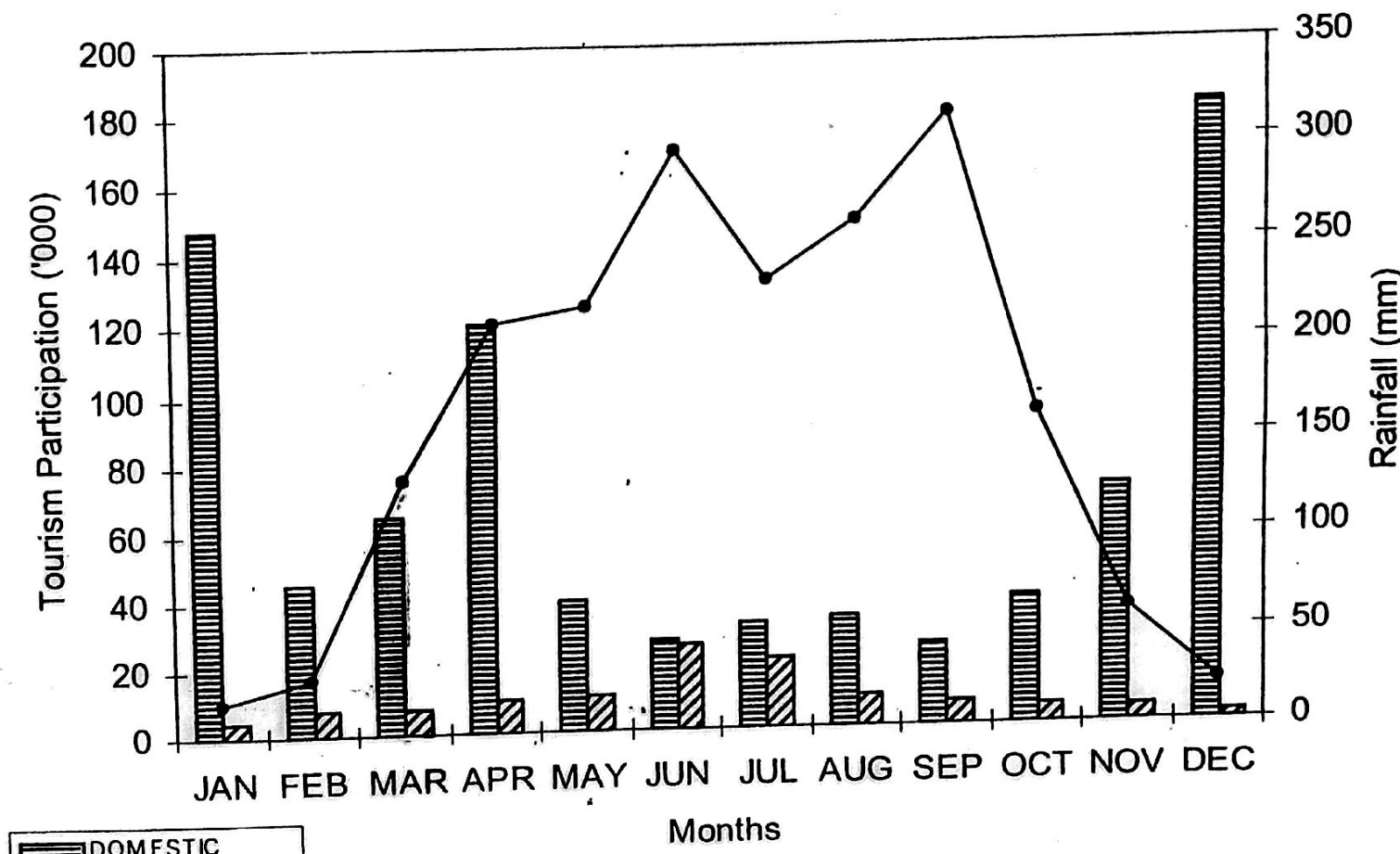


Fig. 2b: Impact of Rainfall on Tourism Participation

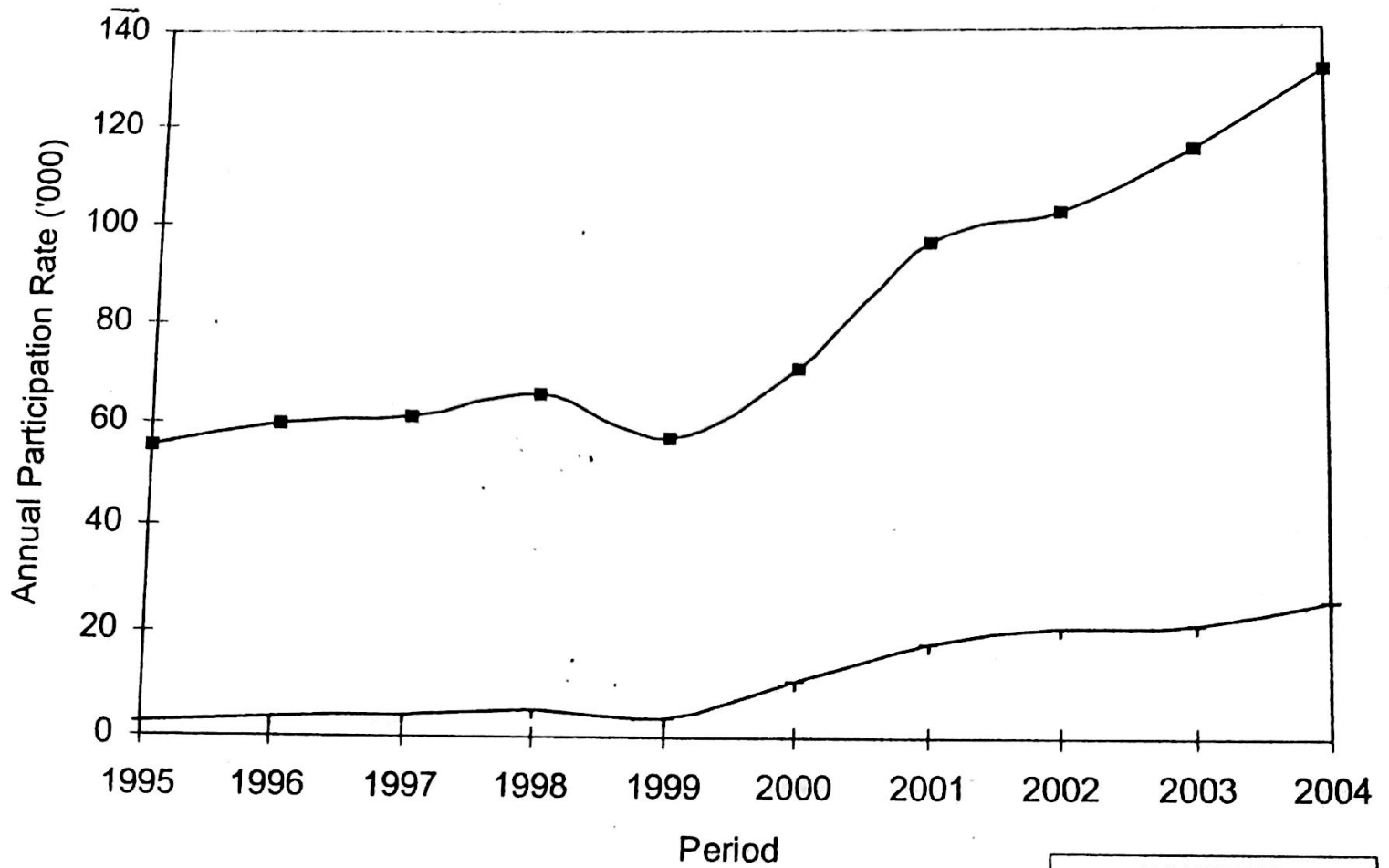


Fig.3: Temporal Variation of Tourism Participation

