

OUTDOOR RECREATION IN KWANGWANASE : A GEOGRAPHICAL
PERSPECTIVE

BY

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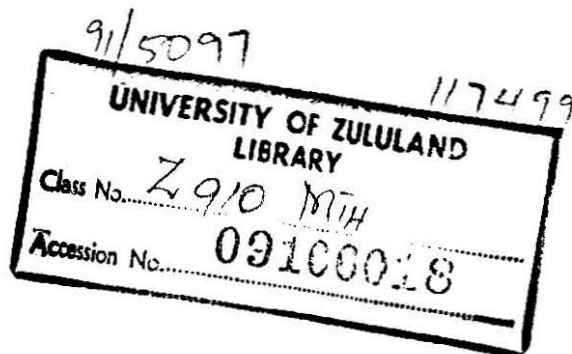
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(ii)

This work is dedicated to my mother Emelinah, sisters Siphiwe and Sindisiwe and my brother Jabulani for their love and support they have shown to me throughout my education.



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It is hereby declared that the opinions expressed or conclusions reached are those of the author and are not to be regarded as reflection of the views of the above mentioned persons;

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SUMMARY

The study attempted to examine the effect of the development of outdoor recreation on people's agricultural activities in KwaNgwanase and the assessment of the potentiality of the area for outdoor recreation. The investigation of the use of outdoor recreation resources formed an integral part of the study.

A clustered random sampling procedure was used which yielded 50 respondents who lived near the outdoor recreation resources. The questionnaire method was used for data collection. The second sample consisted of the authorities in the outdoor recreation resources.

It was found that the community members used the recreation resources for the performance of daily living activities but not for recreation purpose. It was also found that the development of outdoor recreation caused ill-feelings to the community members. The study revealed that that the study area has potential for outdoor recreation. The study highlights that: while productive farming areas in South Africa endowed with good agricultural soils can be developed easily for recreation purpose, marginal areas must be seen from a different perspective. More attention needs to be taken in zoning land-use units so that a balance can exist between the basic human activities.

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CHAPTER 1

ORIENTATION TO THE PROBLEM

1. Introduction

With the advancement of society in industrial urban and social life styles the question of how man utilise leisure time is gaining more attention. This attention calls for the increase of recreation resources. Several studies which include, Hugo (1974), Mercer (1977b), Wilson and Hattingh (1988) and Magi (1986, 1989) agree that there is need for the increase of outdoor recreation facilities with increase in population and improved standard of living of the people. The area of KwaNgwanase has experienced massive development of outdoor recreation resources where agricultural land-use has been replaced by recreation land-use.

The increase of outdoor recreation facilities needs to go hand in hand with land-use planning so that a balance is maintained between basic human activities. Land-use planning is a useful tool for improving land occupation and utilisation, but it must be remembered that its value depends entirely on the quality of the information on which the planning is based (Cunningham, 1984). While productive farming areas in South Africa endowed with good agricultural soils can be zoned easily for recreation

purpose, marginal areas must be seen from a different perspective. Care must be taken in zoning land use units so that a balance exist between the basic human activities.

Another important issue is that the area supplying basic human needs to rural people may be perceived by commercially biased land-use planners as an unproductive bushland suitable only for commercial activities which are not important to rural people. It is through this concern that this study is undertaken, to attempt to address the land-use relationships; as perceived by the local people versus the bureaucratic regional planners.

1.2 Presentation of the Problem

A number of studies conducted in KwaNgwanase which include Tinley and Van Riet (1981), Louw (1984), Cunningham (1984), Tailor (1986), Mountain (1990) and Vandeverre Apsey Robinson and Associates Architects (Vara) (1989) confirm that KwaNgwanase has a low agricultural potential. Soils are mainly highly leached sands. Tailor (1988) in his study on the agricultural practices in KwaNgwanase supports the view that agricultural practices in Maputaland (KwaNgwanase) reflect an adaptation by man to survival in the region of low agricultural production. These agricultural practices have evolved over time and are aimed at reducing the risk of crop failure and increasing the chance of the continuity of food supply through out the year. These practices show how people in the area depend on land for a living.

The issues which constitute the central aim of this study include the following:-

- To what extent do outdoor recreation planners make a balance between recreation and agricultural activities when they plan for outdoor recreation?
- Do people in the study area prefer to substitute their agricultural lands for recreation resources?
- What is the state of recreation resources in the study area?
- To what extent do people participate in outdoor recreation activities?
- Does the area have a potentiality for outdoor recreation?

These questions were the fundamental guidelines the researcher used in studying outdoor recreation in KwaNgwanase and they have been compressed into fewer objectives below.

1.3 The Objectives of the Study

The study examined the following objectives:-

- The effect of outdoor recreation on people's agricultural activities in KwaNgwanase.
- The potentiality of the area of KwaNgwanase for outdoor recreation.
- The participation pattern of people in outdoor recreation.

1.4. The Significance of the Study

The basic justification for research is its contribution to make life less burdensome especially for those who suffer most. In this case, this study is relevant as it attempts to provide a valuable information that ought to help in the planning for outdoor recreation. A well planned environment ought to strike a balance between outdoor recreation activities and other basic agriculture based activities.

1.5 Definition of terms

Unless there is an apparent contradiction of terms, the following operational definitions are used:-

1.5.1 Recreation

The term recreation has a complexity of meanings, and each meaning puts emphasis to a particular aspect. Gary and Graben (1975) illustrated this confusion when they gave a list of approximately 200 phrases describing what recreation is. In this study the concept recreation means all those activities that individuals choose to undertake during their leisure time for the primary purpose of enjoyment through physical, mental and spiritual well-being [Subsidiary Committee for Outdoor Recreation (SCORE, 1979)]. Recreation resources refers to areas that provide such facilities such as parks, beaches, forests which serve the community.

1.5.2 Outdoor Recreation

The term outdoor recreation is very broad. It embraces all recreation activities done without the confines of a building. It covers a broad field of topics from a backyard braai to a two-week camping activity in the wilderness area. In this study outdoor recreation means any type of recreation that is directly related to the natural environment and does not necessarily include all out of doors recreation activities (SCORE, 1979). These activities include fishing, walking for pleasure, hiking, canoeing, boating, picnicking, camping, caravanning, visit to scenic sites and so on.

1.5.3 Geography

Geography in this study refers to the study of the earth's surface in its natural and physical sense and also in its cultural and human activity sense (Wittow, 1988). The geographic perspective involves a combination of physical and human element associated with the environment.

1.6 The Study Area

The study was geographically limited to the outdoor recreation facilities in KwaNgwanase. The recreation resources selected were Tembe Elephant Park, Manguzi Forest and Kosi Bay Nature Reserve. These outdoor recreation resources are run by the Bureau of Natural Resources. There are many areas for outdoor recreation in KwaNgwanase. Time and financial constraints limited the researcher to the above mentioned recreation resources. The area of KwaNgwanase is situated in the northern part of KwaZulu. It stretches from the Pongola river in the west to the Indian ocean in the east and it is boarded to the North by Mozambique. This is shown in the Figure 1.1.

1.7 Research Methodology

This study is primarily a descriptive study. Descriptive studies are concerned with conditions that exist, practices that prevail, beliefs and attitudes that are held, processes that are on-going,

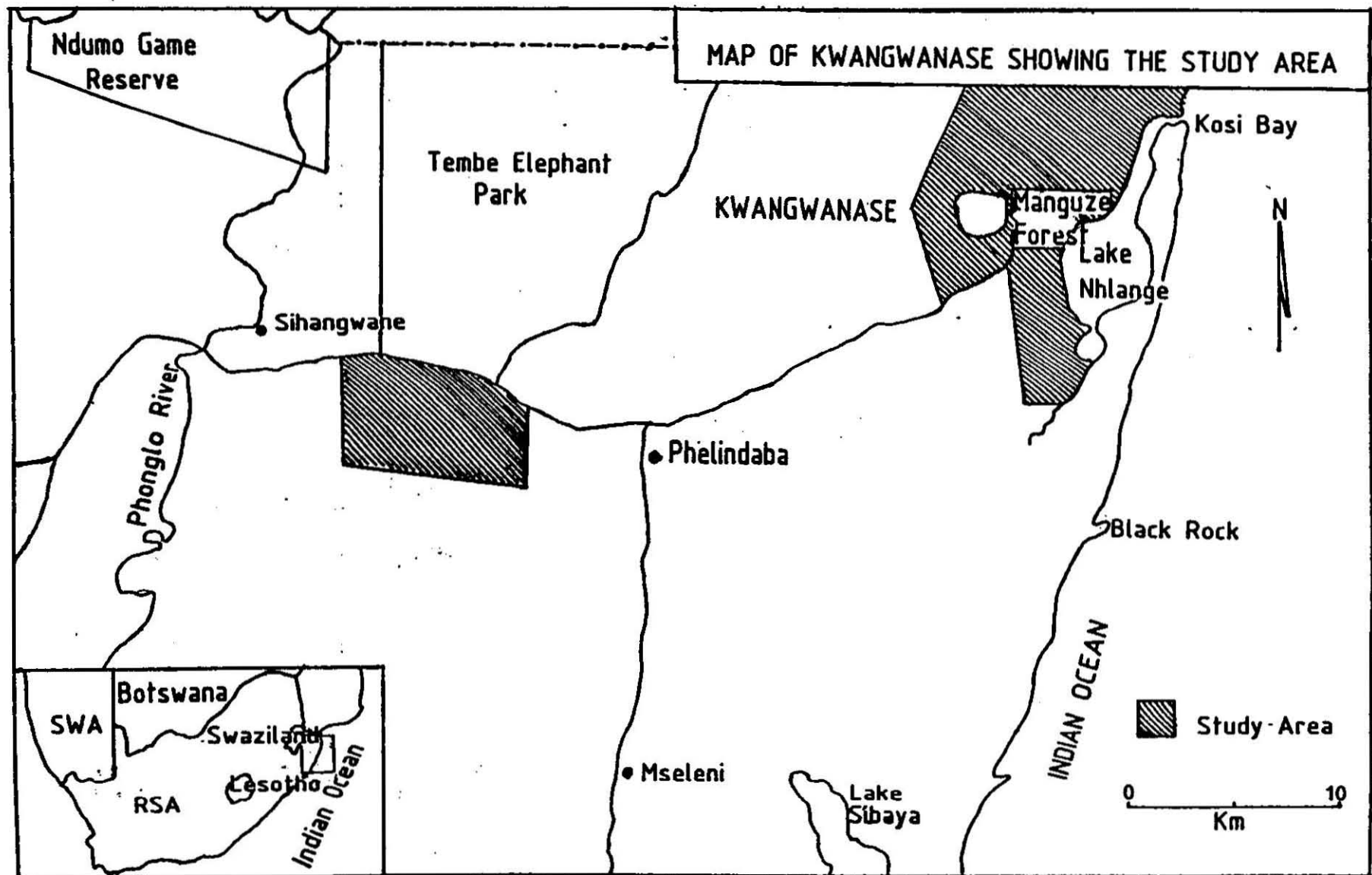


Figure 1.1: Map of KwaNgwanase showing the study area

and trends that are developing (Lovell and Lowson, 1970). Descriptive research is one most widely used in behavioural sciences. The methodology of this study deals with the sample, instrument for data collection and method of data analysis.

1.8 The Sample

The sample consisted of two groups. The first group were the authorities in the outdoor recreation resources. The second group were the community members who live near the recreation resources. The sampling technique followed for selecting respondents in the second group was a clustered random sample. According to Behr (1988) the population from which a cluster sample is drawn, consist of clusters of which the cluster characteristics are similar while their unit characteristics are heterogeneous. All the areas where the sample was drawn are similar in the sense that they are all in the rural area yet the people who live in those areas differ widely on individual attributes, such as age, sex, home background and socio-economic status. Each area in this study formed a cluster. The areas were Sihangwane near Tembe Elephant Park, Mazambane and KwaShengeza near Kosi Bay Nature Reserve and Manguzi near Manguzi forest (see Figure 1.1).

1.9 Instrument for Data Collection

The instrument used for the collection of data was the interview schedule. With this instrument the researcher was able to establish a confidential relationship with the respondents. It also made it possible to explain the purpose of the study and the meaning of items which were not clear.

There were two sets of interview schedules. The first set was administered to the officials managing the outdoor recreation resources. This interview schedule enquired about information regarding the state of outdoor recreation: the participation of people, the facilities available in the recreation resource and the facilities attracting people to the resource. The second set of the interview schedule was administered to the community members. It enquired about the information regarding the personal background, agricultural activities, the use of outdoor recreation resources, impact of the development of recreation resources on people's activities and the perception of community members about the development of recreation resources.

1.10 Method of Data Processing

Since the sample was very large and the interview schedules were comprehensive, it was impossible to process the data manually within a reasonable time. It was therefore decided to process data using the Persetel Mainframe computer available at the University of Zululand.

Since some questions in the questionnaire were open-ended and not pre-coded, it was decided to give each item a code number. The computer programme used was the Statistical Analysis Systems Programme (SAS). The data processing sheets were made where the numerical codes were transferred manually from the interview schedules. The coded data was typed onto the computer. A computer programme was written in SAS language to process the data. The computer programme included the processing of frequency tables and percentages, as well as crosstabulations. Graphical representation of data was made, using both the Lotus and Harvard Graphics programmes.

1.11. Pilot Work

The community members were selected from the area that was not included in the sample to test the meaningfulness of the items in the draught interview schedule. This was also done in order to determine the time to be allowed for the actual interview surveys and to evolve the best method of conducting such interviews.

1.12 Permission to Conduct Interviews

A transmittal letter was written to the Director of KwaZulu Bureau of Natural Resources requesting the permission to conduct interviews in the study area. The permission was granted on condition the officers incharge within the recreation resource concerned were notified in order to make prior arrangements. The arrangements were made to visit the recreation resources. See transmittal letters in Appendix C and D and E.

The permission to interview the community members was obtained from the Tembe Tribal Authority. Excellent co-operation was received from all the people concerned.

1.13 Conclusion

This chapter has attempted to outline how the study of the outdoor recreation at KwaNgwanase was handled. It has shown the sampling method as well as the method of collection and analysing data. It is hoped that in the long run this study will help in providing valuable information in the planing for outdoor recreation resources and facilities in KwaNgwanase.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Recreation as an activity is old as mankind but studies on recreation are very few especially in South Africa. This may result from the fact that this subdiscipline is still in its infancy (Gibbon, 1976). This chapter reviews literature related to recreation and is divided into three sections. The first section deals with the studies which contributed in the understanding of recreation. The second section gives an overview of the recreation studies in South Africa. Finally the third section reviews literature associated with the effect of the spatial development of recreation resources in the area.

2.2 Studies Contributing in the Understanding of Recreation

The period ranging from 1960's through to 1980's has experienced a growth of studies in behavioural recreation, with particular emphasis being placed on environmental preferences, appreciation and cognition (Magi, 1989). These studies which include Meyerson (1969); Neulinger and Raps (1972) and Mercer (1971) concentrated on the ways in which recreation activities are studied, reasons that make people participate in recreation activities and the

role of perception in recreation activities. Most of these studies contributed in the better understanding of behavioural recreation as a subdiscipline of recreation studies in general.

The history of the organised recreation movement in the United Kingdom and in the U.S.A. is well documented by Krause (1978), where he maps the early developments in the late 19th century and early 20th century. His work also emphasises the close association between the recreation movement and the development of industrial society.

Basic work on outdoor recreation was done by the Outdoor Recreation Resource Review Commission (ORRRC, 1962) which was established as a result of the law passed by the Eighty-fifth Congress of the United States of America. This Commission was charged with the task of studying the present and the future needs for outdoor recreation and with determining the available and future supply of outdoor recreation resources in the United States. The Commission submitted its report which covered 27 volumes of study reports on outdoor recreation (ORRRC, 1962). The report stressed the personal characteristics of a person which influence the perception of recreation activities. These characteristics include: age, occupation, education and residence. It emphasised that these characteristics play a major role when a person chooses a recreation activity. Douglas (1982) is one of the proponents of the 'personal characteristics'

approach. In his work he discusses the basic factors influencing outdoor recreation participation. These are personal characteristics which have been stressed by ORRRC and other factors like disposable income, availability of leisure time, communication and the supply of outdoor recreation resource. These factors are usually taken into consideration when planning for outdoor recreation resources.

2.3 Recreation Research in South Africa

Recreation studies in South Africa are very few. The main reasons seem to be the fact that recreation as a discipline is young. Some of the major contributors in the field of recreation include: (1) Hugo and Hattingh (1972), (2) Sutcliffe (1981), (3) Kies (1982), (4) Schlemmer (1977, 1988), (5) Ferrario (1981), (6) Butler-Adam (1981, 1984, 1986) and (7) Magi (1986, 1988, 1991).

The study by Hugo and Hattingh (1972) addresses the physical resources for recreation and the magnitude of recreation demands in Pietersburg. The authors found that the factors which influence outdoor recreation participation include: population increase, urbanisation, Time Income Mobility and increase of leisure. They also found that the recreation resorts were made without considering the needs of the people. It can be emphasised that in this study greater attention was paid to the recreation

behaviour patterns of whites while other population groups are largely ignored. This is a dominant feature in most of the recreation studies in South Africa.

Wilson and Hattingh (1988) undertook a study on recreation within the seven Black Townships of PWV region which determined the role and the meaning of recreation in Black communities as well as examining the need for urban recreational facilities for Blacks. The authors found that traditional forms of recreation were gradually being replaced by western recreation activities being adapted to the unique culture of the Black community. The shortage in the recreation facilities was found.

The study by Sutcliffe (1981) on behavioural recreation in the Natal Drakensburg aimed at finding the behaviour of people towards recreation resources and the reasons for choosing a particular recreation resource. He found that accessibility and cost of the trip to a recreation resource plays a major role in the selection of a recreation resource. This study also did not address the question of black recreators.

The study which represent one of the few studies addressing black recreation participation was conducted by Kies (1982), which looked at the problems related to the use of leisure in Soweto. The study aimed at revealing the shortcomings in the provision of recreation and sport facilities and also at indicating the

interests and preferences of Blacks regarding recreation and sports. It found that the problems experienced in recreation were associated with anthropological and psychological factors, living conditions, political obstacles and the quality of the recreation facilities. These problems resulted in little participation in recreation activities.

Ferrario (1981) investigated tourism potential in KwaZulu and Natal and also examined the approach which ought to give good management of tourism. The study found that the areas along the coast have a high potential for tourism, and most of the tourists come during the holidays.

The study by Schlemmer (1977) on the Outdoor Recreation in Pietermaritzburg aimed at finding the extent to which the open air recreation facilities will meet future demand. The sample of this study included the Whites, Indians and Coloured. There was a significant relationship between the socio-economic status and the participation of people in outdoor recreation activities.

Schlemmer (1988) also undertook a study on the Outdoor Sport and Recreation Needs in Greater Durban. The study aimed at the estimation of quantitative standard for the provision of open space for leisure purposes in residential areas. The findings

from this study would serve as a form of standardised guideline for determination of open space provision in the zone planning of urban residential areas. The importance of this study is that it included the residential area of all population groups. Lack of outdoor recreation facilities in black, coloured and indian residential areas was found.

Butler-Adam (1981) undertook a study at the Albert Falls Public Resort which gave a physical analysis of the resort and also aimed at finding out about the personal characteristics of the people who uses the facilities. It also sought to establish their feelings about the facilities and their wishes about the future development of these facilities. The study found that the majority of the people who visit the resort are young and belong to middle class and that socio-economic conditions act as a constraints to Blacks, Coloureds and Indians in using some of the facilities in the resort. Generally the study showed the need in South Africa for more research studies on recreation which address all population groups.

The study by Magi (1986) investigated the extent to which Black people perceive natural recreation resources, the influence of cultural and philosophical factors as well as the role of demographic factors on the perception of natural recreation

resources. The study found that while outdoor recreation is perceived positively in general, it is not a priority facility among Blacks. Basic needs which are regarded as high priorities include education, housing and farming.

The follow up study was undertaken by Magi (1989) which investigated the manner in which the Black people in the Natal north coast cognised natural recreation resources through the use of photographs representing various aspects of natural recreation environment. It was found that the spatial and socio-economic inequalities had influence on cognition of natural recreation resources.

After the repeal of the Separate Amenities Act there was a need for a study which will examine the effect of this repeal on the Blacks perception of outdoor recreation resources. Magi (1991) undertook a similar study in which he found that the repeal of separate amenities act did not have a perceivable impact on the perception of outdoor recreation resources.

In South Africa comprehensive work in the field of recreation was done by the Subsidiary Committee for Outdoor Recreation (SCOR, 1978), which was formed by the Department of Environmental Planning and Energy. This committee has been established on the same principle as the Outdoor Recreation Resources Review Commission (ORRRC, 1962). The committee was aimed at bringing

about a research programme leading to the provision of a recreation infrastructure which will meet the need of all the inhabitants of South Africa (SCOR, 1978). There were three volumes published by the committee. These volumes deal with the research strategy in recreation , the glossary of terms used in the field of outdoor recreation and identification, evaluation as well as the mapping of natural recreation resources on a national level.

It is important to note that the majority of the studies mentioned above were carried out on the White population. Studies which included the Black population were those conducted by Kies (1982), Butler-Adam (1981), Magi (1986, 1989, 1991) and Wilson and Hattingh (1988). This shows that there is a need for more studies in recreation to be undertaken involving the Black population. It is expected such studies will shed more enlightenment on recreation issues that involve the Black population. Information on the socio-economic status of Blacks, environmental factors, values and preferences, generally, play a major role in the planning of outdoor recreation facilities. Such components need to be considered when such studies are undertaken in South Africa.

1.4 The Effects of the Development of Recreation in the Study Area

This section reviews literature which assess the effects of the development of recreation resources in the study area. The study by Odendal and Schoeman (1990) on the Tourism and Rural Development in Maputaland addresses the correlation between tourism and rural development and the impact tourism could have on local areas. The latter study agrees with those of Muller (1985) and Mountain (1990) that tourism has the potential of benefiting local areas both as a currency earner and as a provider of employment for those who are directly involved in the administration, servicing and management of the resorts. Tourism also helps in bringing buyers of craftwork into the study area. The study by Odendal and Schoeman (1990: 196) also mentions the following factors which need to be taken into consideration when the Maputaland area is developed for recreation purpose:-

- The life-style and privacy of the people living in the areas serving as tourist destination should not be invaded.
- Any developmental action must ensure that no disruption of ecological systems occurs.

- The implementation of technological measures should be commensurate with the needs, skills, training and finances of the people in the area.

The development of recreation resources within the study area is also accompanied by the negative effects such as the conflict of interest arising due to lack of available land. The use of decreasing land resources for establishing tourist facilities without regard for the survival needs of the local community must be seen as a major contributing factor to the constraints in development. Odendal and Schoeman (1990) see these negative effects as a result of inadequate initial planning. A similar study by Countess et al. (1977) undertaken in Tennessee (USA) emphasises the problems and the conflicts associated with river recreation programming and management. The writers (Countess et al., 1977: 148) found that the problems resulted from the following factors:-

- Incapability of a Bureaucracy to maintain effective liaison with the local people.
- Invasion of the community by the tourists which result in the lack of privacy.

- Insensitivity of Governmental Agencies- they are preoccupied with the "project for the project's sake".
- Inconsistency of Governmental policies where the procedures and methodologies initially presented to the public may change significantly with little or no prior notice.
- Landowners unjustly compensated for the land loss.

One of the fundamental reasons of undertaking this research project in KwaNgwanase is to establish the extent to which some of the factors used by Countess et al. (1977) are operational in the study area. This intention is well reflected in the presentation of the problem (see paragraph 1.2. on page 3)

2.5 Conclusion

This chapter has attempted to review the existing literature on outdoor recreation in South Africa. Recreation research studies conducted in South Africa have tended to emphasised the physical aspect of the recreation system, recreation behaviour patterns of the recreationists and the practical problems of the recreation activity. This research agenda seems to have a beneficial outcome for the general field of outdoor recreation research. However, there is a great need for more research that involves the Black population as subjects of investigation. The studies by

Muller (1985); Odendal and Schoeman (1990) and Mountain (1990) on the development of recreation agree that outdoor recreation contributes to the development of the study area although adequate initial planning needs to be done to avoid some serious problems.

CHAPTER 3

OUTDOOR RECREATION RESOURCES IN KWANGWANASE

3.1 Introduction

This chapter gives an overview of the actual setting of the outdoor recreation resources in Kwangwanase. These resources are Kosi Bay Nature Reserve, Manguzi Forest, Tembe Elephant Park, Ndumu Game Reserve and Lake Sibaya. In order to give a complete picture of the outdoor recreation resources in the study area this chapter has included the recreation resources which were not selected in the sample. These resources are Ndumu Game Reserve and Lake Sibaya. The recreation resources which are investigated are also shown in Figure 1.2.

3.2 Kosi Bay Nature Reserve

Kosi Bay Nature reserve is part of the Kosi Lake system situated in the north eastern corner of Kwangwanase. The lake system is about 18 kilometres long, runs parallel to the coast and consists of four interconnected lakes. At the northern end there is an estuarine basin (See Figure 1.2). The Kosi lakes cover an area of about 37 km² and the total system drains a catchment area of

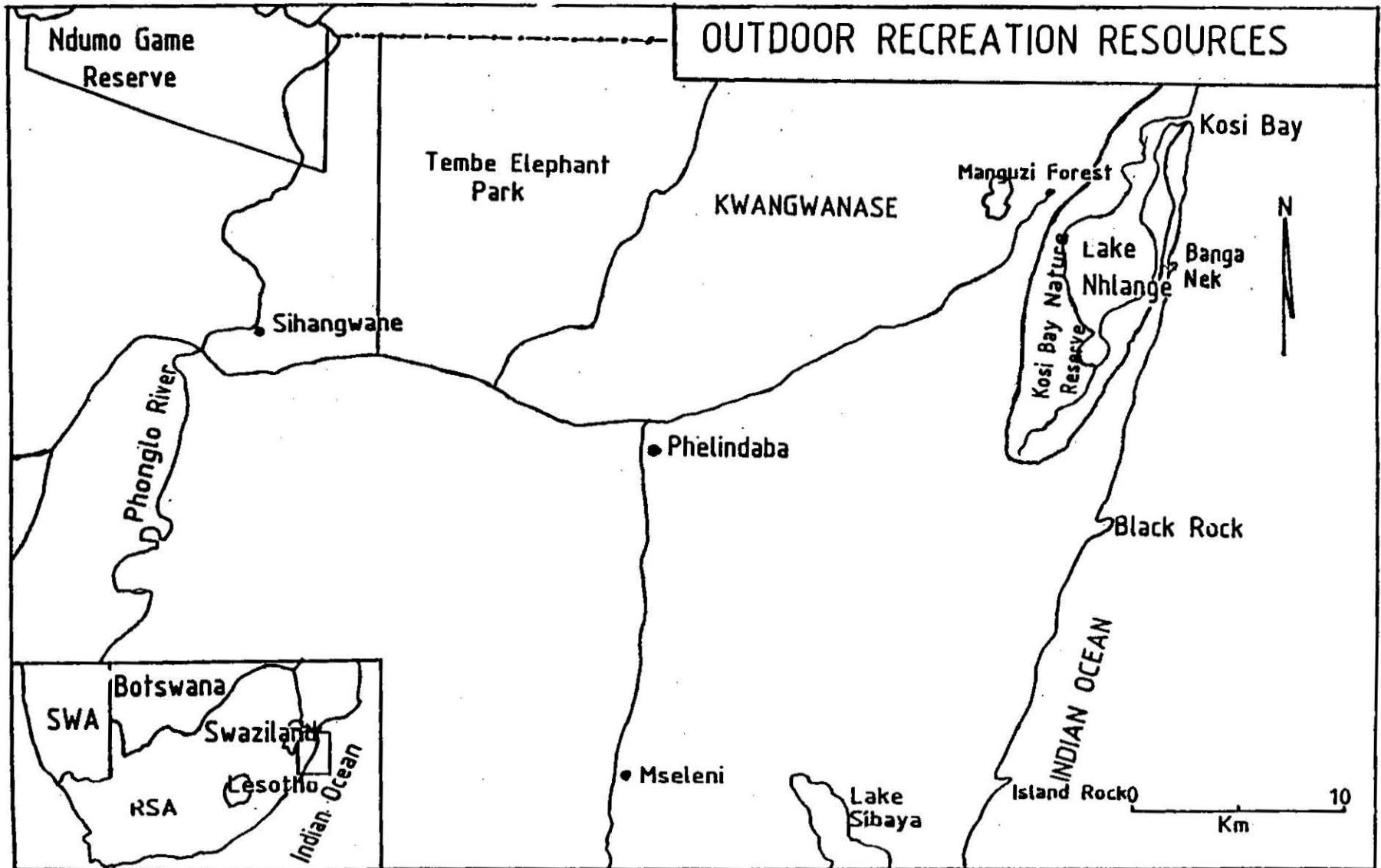


Figure 1.2: Map of KwaNgwanase showing Outdoor Recreation Resources

approximately 500 km² (Mountain, 1990). Soils in the catchment area mainly leached acid sands, which means that there is no erosion of soil into the lake system. The result of this lack of erosion is that the waters of the Kosi system are silt free which makes it unique from other lakes in South Africa (Begg, 1980).

According to Mountain (1990) Kosi Bay Nature reserve has a camping facility of fifteen camping sites. The camp contains three thatch lodges. Lighting is provided by solar-charged batteries, and cooking and refrigeration are by gas. There is also a 15 km hiking trail which starts at the Nhlangwe lake base camp near the Kosi Bay camping site, passing through the Malangen Forest to the Siyadla river and ending at the Siyadla trail camp. Canoes are available for hire-journeys up the Siyadla river. In 1988 the size of the reserve was increased by 10 000 hectares.

3.3 Tembe Elephant Park

The Tembe Elephant Park was proclaimed on 21 October 1983 in order to protect the last remaining unprotected herds of free-ranging elephants in South Africa. The park covers an area of about 29 000 hectares and it is situated along the northern boundary of KwaZulu with Mozambique (See Figure 1.2). The flora

(such as sand forest, woodland, grassland and swampland) and the fauna of the park is unique as the park is situated in the southern limit of a tropical ecosystem. Presently there are between 80 and 100 elephants in the park (Mountain, 1990).

At the time of research the Tembe Elephant Park is not yet open to the public as tourist facilities are still being developed. When development is completed there will be hutted camp accommodation and guided wilderness trails in one of the most important tropical dry forest areas (KwaZulu Government).

1.4 Manguzi Forest

Manguzi forest was proclaimed in 1983 in order to protect the unique tropical forest vegetation of the area which include natal mahogany and tamboti. The forest covers an area of about 200 hectares (See Figure 1.2). At the time of writing the Manguzi forest is not yet open to the public as the main emphasis is presently on environmental protection for conservation reasons.

3.5 Ndumu Game Reserve

The Ndumu Game Reserve was taken over from the Natal Parks Board by the Bureau of Natural Resources in 1988. The reserve covers the area of 10 000 hectares (See Figure 1.2). The main feature of Ndumu is the series of flood plains and pans which dominate the

reserve. These pans, which are fed by the Usuthu and Pongola rivers, are rich in nutrients and provide a habitat for large number of hippos, fish, crocodiles and birds (S.A. Readers Digest, 1983).

Animals which occur in the reserve include the black rhino, nyala, bush buck, impala, bush pig and zebra. There is also an abundance of bird life at the reserve. Trips through the reserve are made in a vehicle or on foot with a guide. There are special trips conducted in open vehicles to the Nyamiti, Polwe, Skokwe and Banzi pans, which have a great variety of aquatic birds and a crocodile population (Mountain, 1990).

The reserve is open to day visitors and accommodation is provided in the hutted camp, which consist of 7 three-bedded bungalows.

3.6 Lake Sibaya

This lake is situated on the coast of Northern Natal roughly, east of Mkuze and South of the village of KwaNgwanase (See Figure 1.2). It has approximate surface area of 70 km² and an average depth of 13 metres. The surface of the lake is about 20 metres above the sea level and the deepest point is approximately 20 metres below sea level (Mountain, 1990). The supply of fresh water and fish

and also the potentiality for tourism, are the important economic assets of Lake Sibaya. The lake has a prolific bird life, with 279 species having been recorded in the area.

Nile crocodiles inhabit the main lake as well as the surrounding swamps. Bruton (1980) has stressed the importance of crocodiles in the Lake Sibaya ecosystem where they help in keeping the barbel population check and minimising the risk of contamination in the lake by acting as scavengers.

There is a Baya Camp on the southern shore of Lake Sibaya. The camp comprises three four-bedded and four two-bedded chalets. The Bureau of Natural Resources has proposed the establishment of Lake Sibaya Tribal Reserve where the administration of the reserve will be done by members of the community and the officials from the Bureau.

3.6 Conclusion

The chapter has attempted to give an overview of the physical setting of the outdoor recreation areas in the study area. All the recreation resources mentioned are in the process of development. It is important to mention that the area has a potentiality for outdoor recreation.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

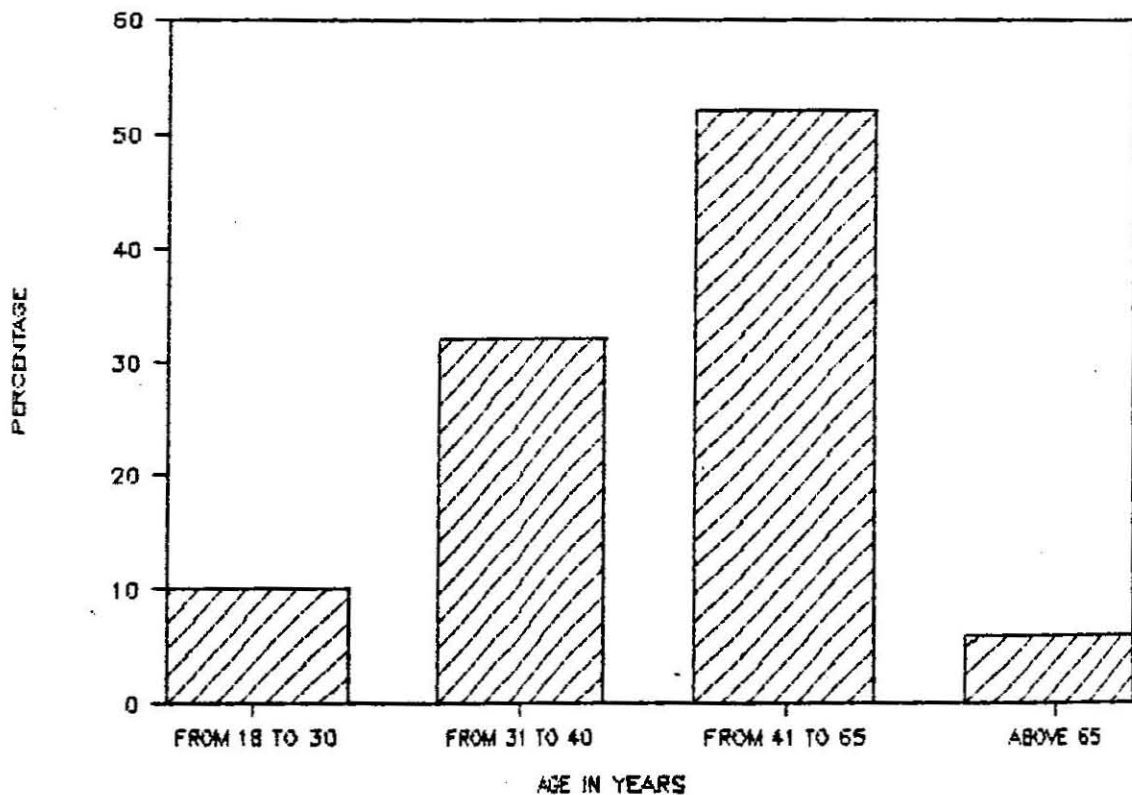
Presented in this chapter is the analysis and interpretation of data obtained from this study. As stated earlier, the central aim of the present study is to examine the effects of outdoor recreation on people's agricultural activities in KwaNgwanase and also to assess the potentiality of the area of KwaNgwanase for outdoor recreation. In this chapter graphs and frequency tables have been constructed in order to facilitate the analysis of data. Interpretation and analysis of data are being done simultaneously.

4.2 Personal Background of the Respondents

The sample in the entire study consisted of 50 respondents. Majority of the respondents were females (70%) and the males constituted 30%. This imbalance between males and females is the dominant feature in the rural areas where the male population leave the rural areas because of work opportunities outside their rural areas. According to Vara (1989) migrancy level in Maputaland (KwaNgwanase) is relatively low compared to other rural areas.

The majority of the respondents (82%) were between 31 and 65 years old. There was a small number of respondents who were between 18 and 30 years (10%) and above 65 years (6%). This is shown in figure 2. The study aimed at examining the effect of outdoor recreation on peoples' agricultural activities. The majority of the people who are engaged in agriculture are middle age people.

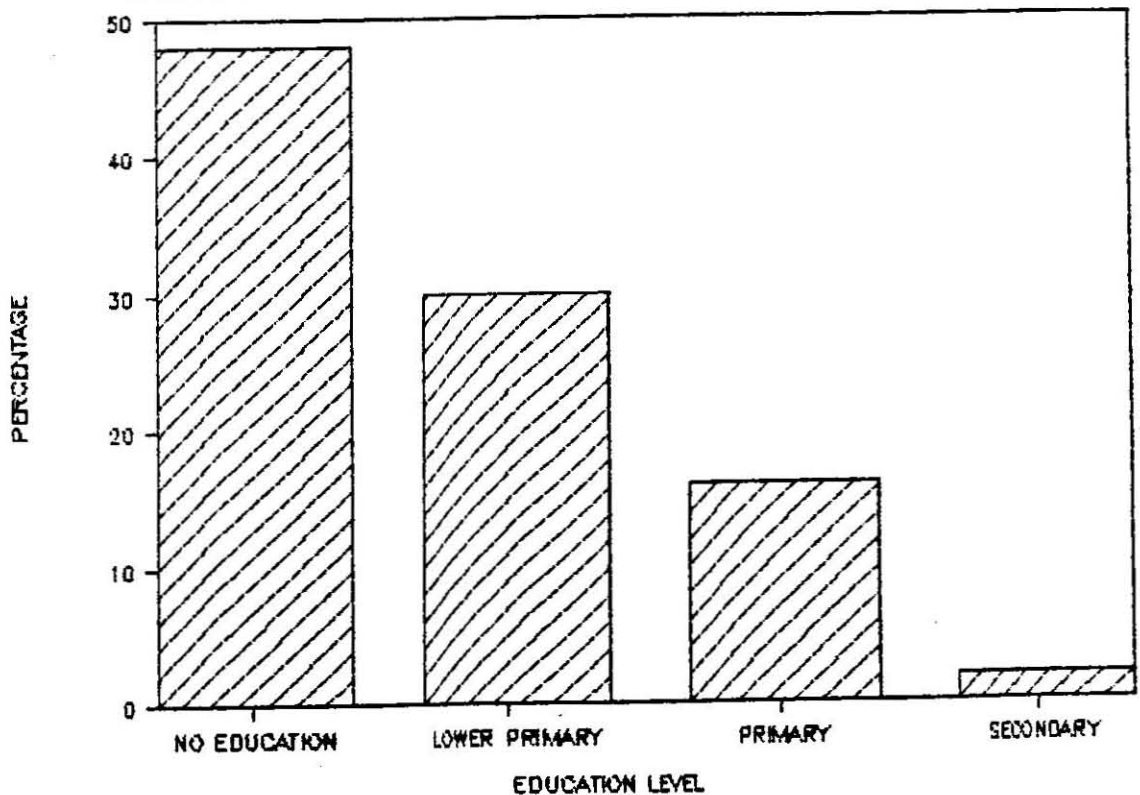
FIGURE 2: AGE ANALYSIS OF RESPONDENTS



A significant high percentage of the respondents had no formal education (48%) and a small group (30%) had lower primary education. Only a very small number had primary education (16%) and secondary education (6%). This is shown in figure 3. The

overall level of formal education in the area is extremely low. Only 28% of the adult population is functionally literate (Vara, 1989). There are many reasons attributed to low literacy in the area, but the most serious is the lack of educational facilities and poor standard of teaching.

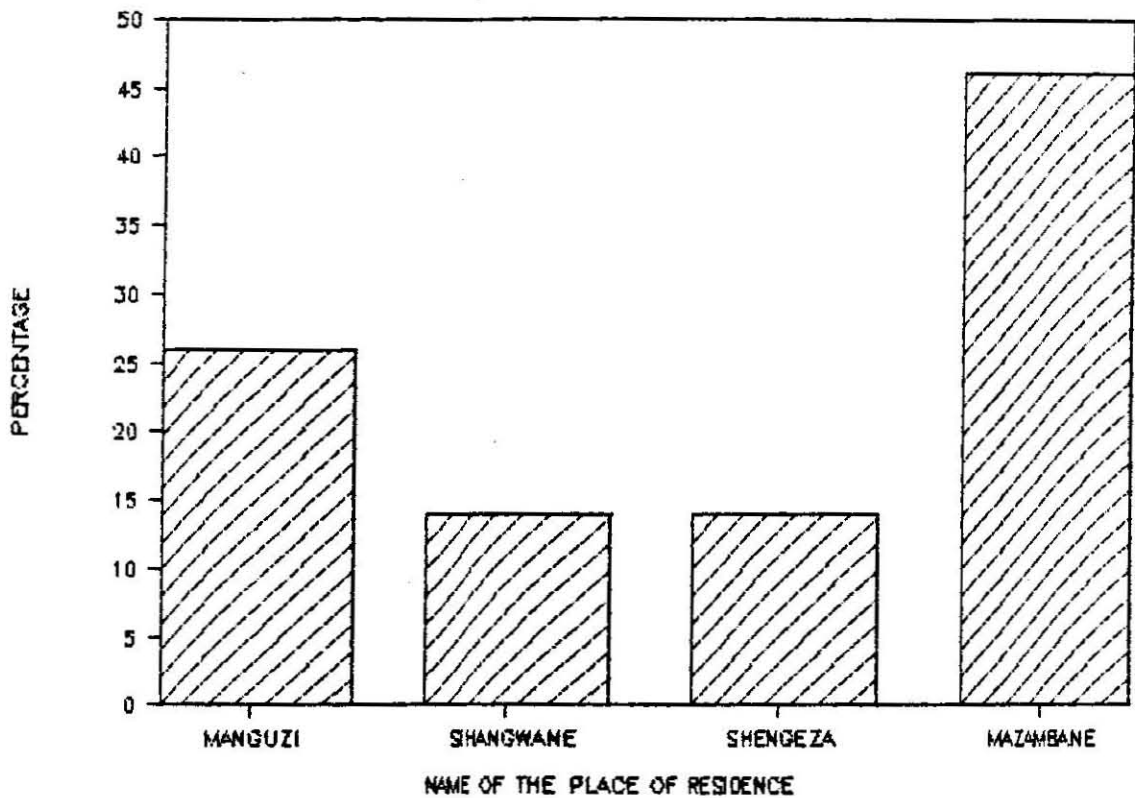
FIGURE 3: EDUCATION LEVEL OF RESPONDENTS



Regarding the place of birth of the respondents it was found that all the respondents were born in KwaNgwanase. The majority of the respondents (60%) were living near Kosi Bay Nature Reserve (i.e.

Shengeza and Mazambane) and a small group was living near Manguzi Forest (28%) and Tembe Elephant Park (14%). This is shown in figure 4.

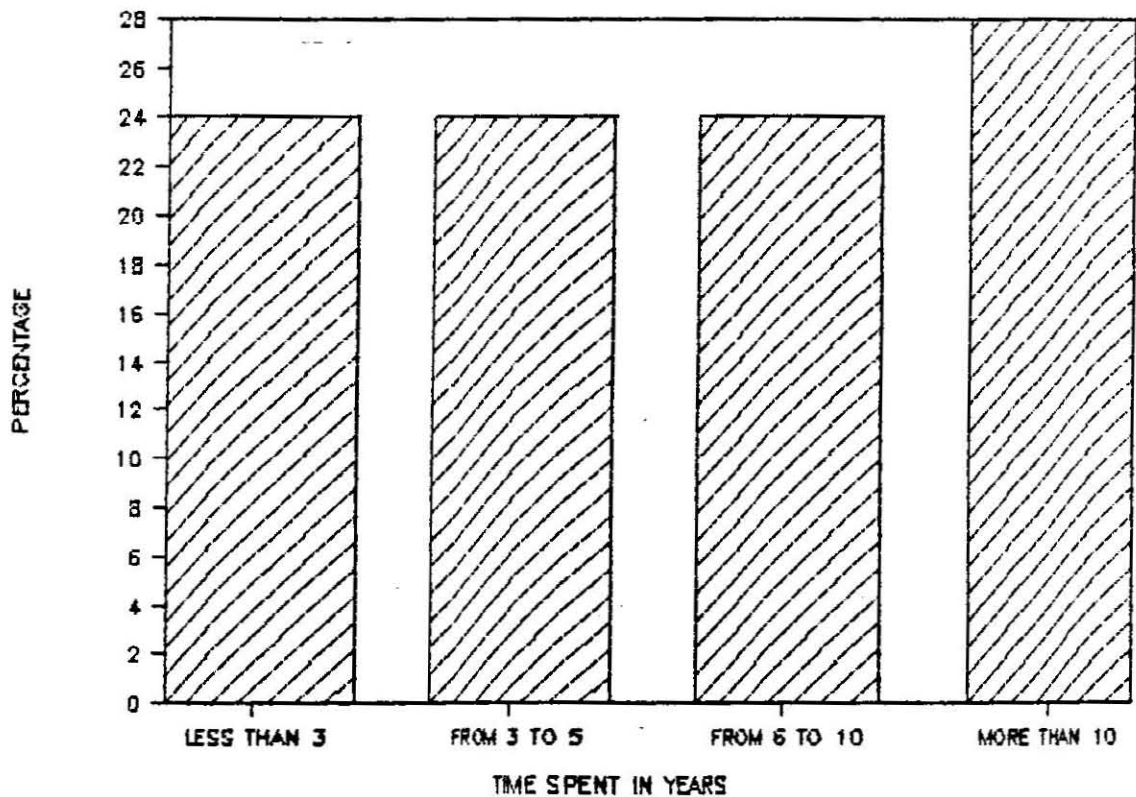
FIGURE 4: PLACE OF RESIDENCE



Majority of the respondents (52%) have lived in the area for more than 6 years and there was a small group which lived for less than three years (24%) and also for 3 to 5 years (24%). This is shown in figure 5. Although the majority of the respondents have been in the same place of residence for more than 6 years, the area of KwaNgwanase was never free from the developments which resulted in the relocation of the people. In 1972 the Coconut Project was established in KwaMahlungulu (near Kosi Bay Nature

Reserve where more than 30 families were relocated without the compensation for the fields and houses which they lost. In 1981 a tarred road was constructed in the area which resulted in the relocation of many families.

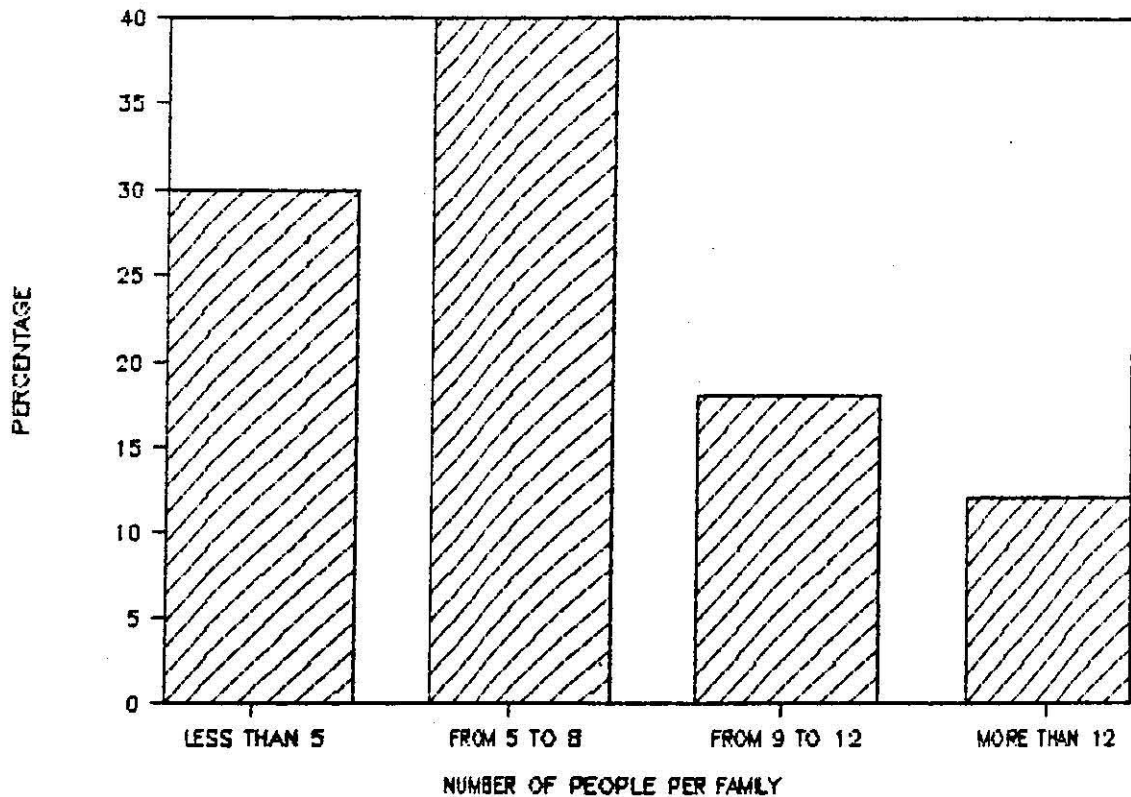
FIGURE 5: TIME SPENT IN THE AREA



Concerning the marital status, it was found that the majority of the respondents (68%) were married and a small group (24%) constituted of the respondents who were widowed and finally the rest of the respondents (8%) were singles. Regarding the size of the family, it was found that the majority of the respondents (40%) had a family size between 5 and 8 people and the other 2

small groups had a family size between 1 and 4 people (24%) and above 9 people (30%). High family size is a dominant characteristic of the rural areas where families are of the extendent type. The family size analysis is shown in figure 6.

FIGURE 6: FAMILY SIZE IN KWANGWANASE



4.3 Agricultural Activities

Agricultural activities in KwaNgwanase occur at three levels: dry farming which takes place in dry lands, swamp farming which is performed in the swamp areas near the lakes and rivers, and home

gardening which takes place at homes. The occupation of the majority of the respondents (88%) is farming and the rest of the respondents are engaged in skilled jobs (4%) and semiskilled jobs (8%). Agriculture is the predominant economic activity in this region.

The study also found that the agricultural products produced by the majority of respondents (above 60%) were sweet potatoes, mealies, ground nuts and millets. The analysis of all the agricultural products is shown in table 1. It was also found that 80% of the respondents were practising subsistence agriculture. People resort to such a form of agriculture because there are no other places of occupation where people can engage themselves. There are no employment opportunities.

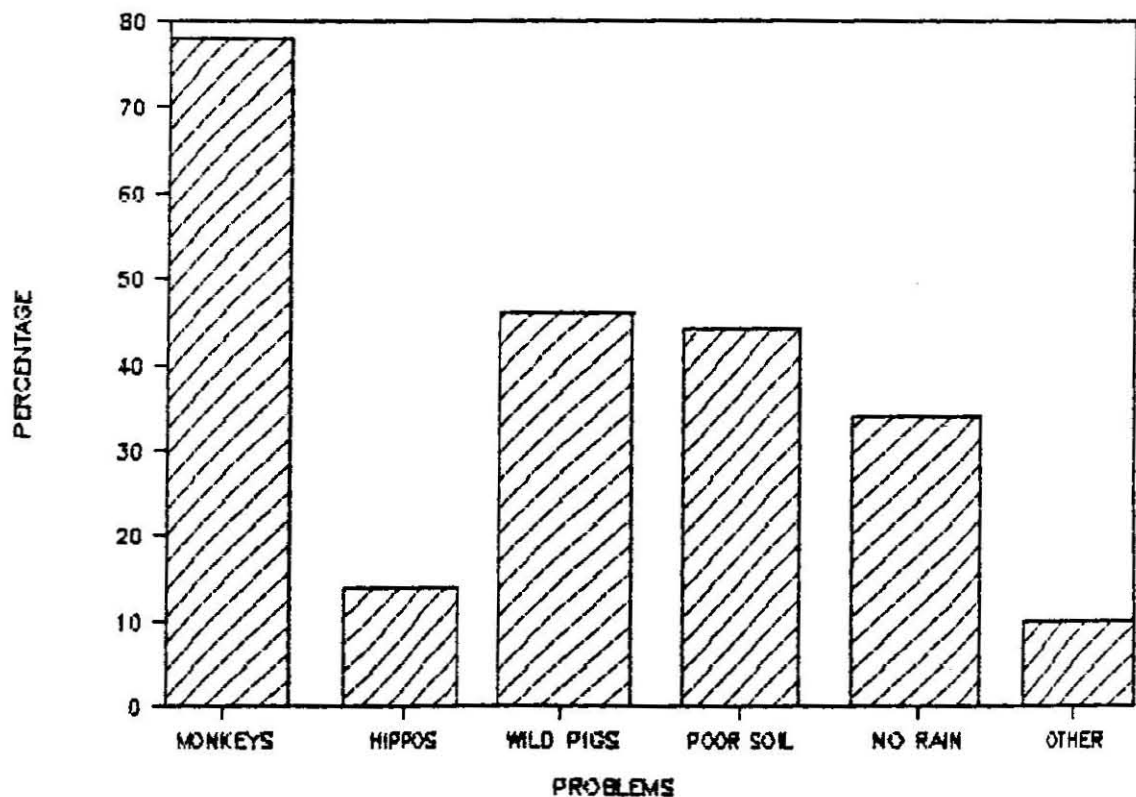
**TABLE 1: AGRICULTURAL PRODUCTS
IN KWANGWANASE**

AGRICULTURAL PRODUCTS	FREQUENCY	PERCENTAGE
Sweet potatoes	49	98
Millets	48	96
Pumpkins	18	36
Ground nuts	44	88
Millets	34	68
Sugar cane	7	14
Banana	10	20
Cabbage	8	16
Spinach	4	8
Onions	5	10
Beans	13	26

NB Respondents gave more than one product

The respondents also reported that they experience problems in agriculture. The problem of monkeys which eat crops was reported by the majority of the respondents (78%). Other animals which trouble the respondents were hippos (14%) and wild pigs (46%). Poor soil (44% of respondents) and drought (34% of respondents) were also seen as a major problem in the area. There were also other problems, like birds and the wind which affected the crops. The problems affecting agriculture are shown in figure 7.

FIGURE 7: PROBLEMS IN AGRICULTURE



NB Respondents gave answers to more than one problem.

According to Tailor (1988) and Mountain (1990) the agricultural problems stem from poor soil, poor infrastructure. The soils of KwaNgwanase fall within the Fernwood form and have acid. The study of soil analysis of KwaNgwanase by Tailor (1988) revealed that the soils lack fertility. More nutrients are required to be added in the soil so that the soil fertility can be improved.

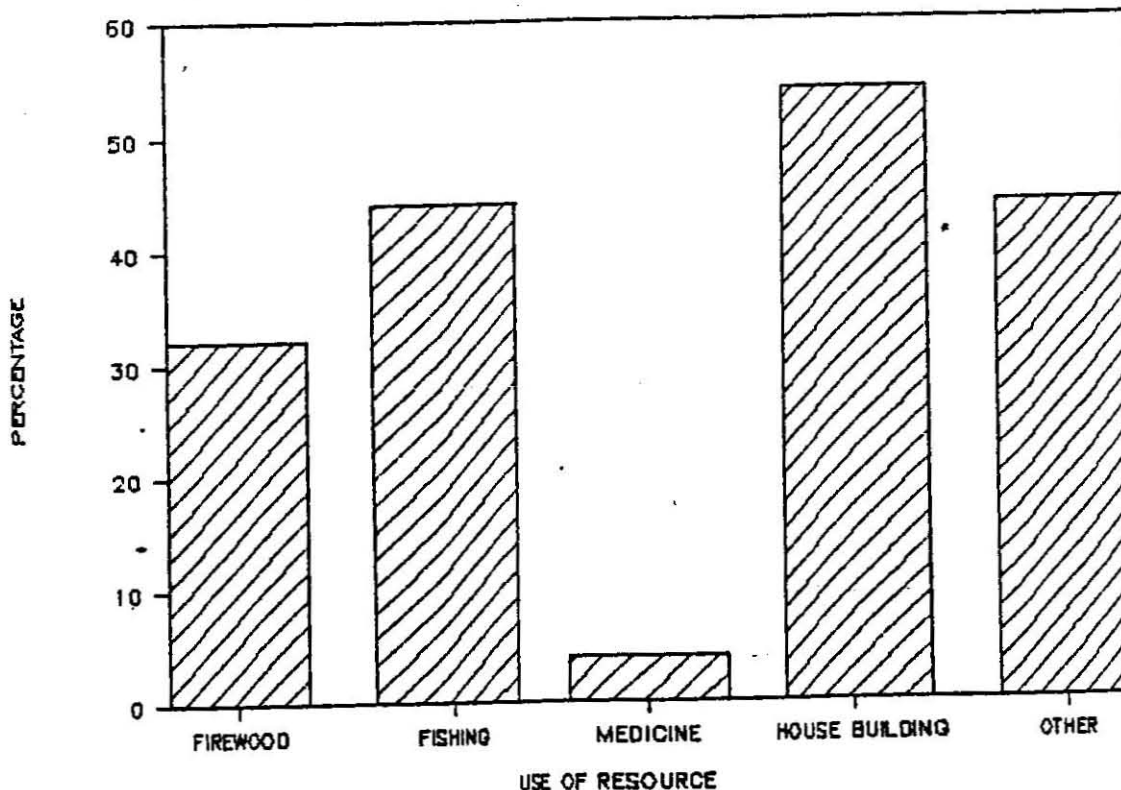
Infrastructure which is lacking in the study area include the following: agricultural extension services, markets to sell products, water for irrigation and source of agricultural inputs like places where seeds, insecticides and fertilisers are sold.

Although people engaged in agricultural activities face some problems which finally reduce crop production, agriculture does provide a limited source of livelihood for the majority of the people in KwaNgwanase. As a result, agriculture is generally perceived by local people as an important economic activity.

4.4 The use of Natural Recreation Resources

This section of the paper is aimed at finding out the manner in which the community members use the natural recreation resources within the study area. It was established that the respondents use some of the recreation resources as follows: for the collection of firewood (32%), fishing (44%), collection of medicine (4%) and building material (54%), for example reeds and poles, and other uses such as collecting grass for making mats (44%). All These activities are shown in figure 8 below.

FIGURE 8: USE OF RECREATION RESOURCE



NB Respondents gave answers to more than one item.

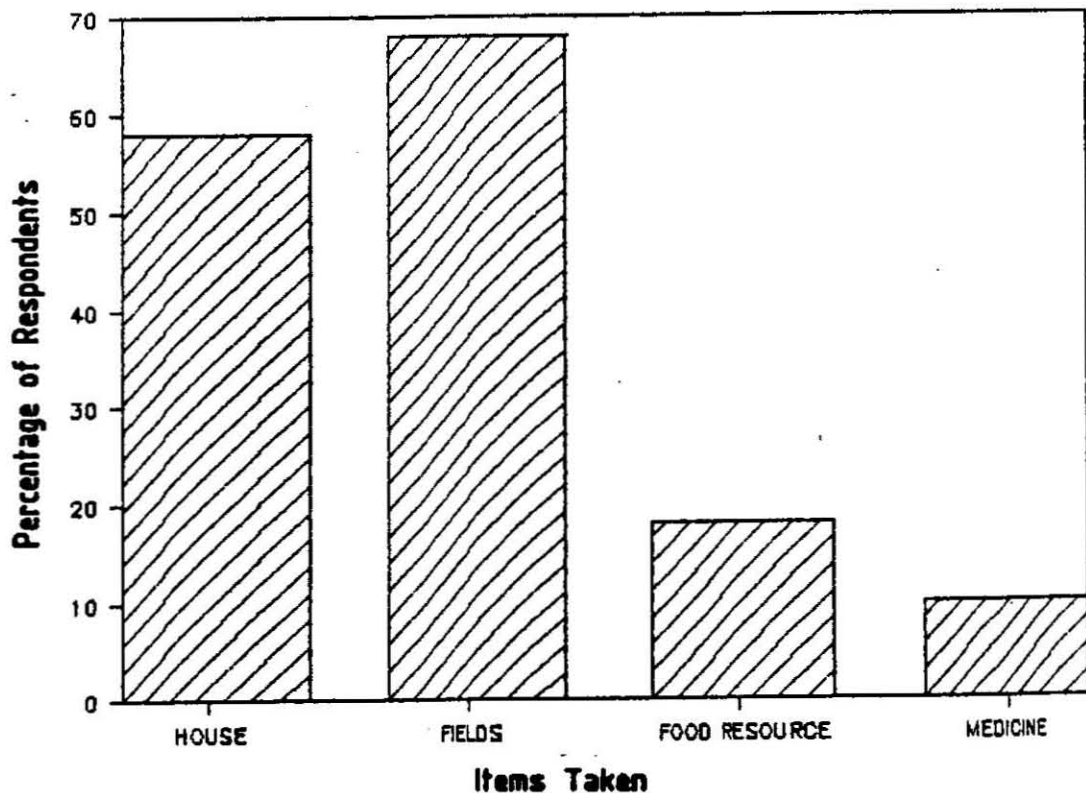
It is important to note that the respondents were not using the recreation resources for recreation purpose but for the performance of other basic and functional activities for living. It was also found that the recreation resources which were near the homes of the respondents were perceived as: game park, (14% of respondents), lake (60% of respondents) and forest (26% of respondents). The majority of the respondents who use recreation resources for fishing were living near the Kosi Bay Nature Reserve (Mazambane). Tinley (Undated) has given an elaborate discussion of the fishing methods used by the people of KwaNgwanase where the use of the fish kraals has been done for over 400 years. Other fishing methods include the use of home made fishing rods and nets. The use of nets in the Kosi Lake System is forbidden by the Bureau of Natural Resources for reasons purely based on conservation principles.

It has been stated earlier that the use of natural resources in KwaNgwanase is an important economic activity. People rely on the resources in order to supplement their economy. Cunningham (1985) in his study of the resource value of indigenous vegetation to rural people, has revealed that the sale of craftwork made from the material which come from the natural resources provides a source of income for approximately 1 000 workers.

4.5 The impact of Recreation Development on People's Activities

In assessing the impact of recreation development in agricultural activities, the respondents were asked to report whether they have access to the recreation resources. The majority of the respondents (78%) reported that they have access to the resources and the rest (22%) reported that they were denied access. The majority of the respondents who did not have access were from Tembe Elephant Park, because there are elephants in the resource which are regarded dangerous to people.

**FIGURE 9: ITEMS PEOPLE LOST DURING
DEVELOPMENT OF RECREATION
RESOURCES**



NB Respondents gave answers to more than one item.

The impact of the development of recreation resources was also assessed by finding out the items which the respondents lost during the development programme. It was found that a substantial number of respondents indicated that they lost their fields (68% responses) and houses (58% responses). Some respondents reported that they lost the opportunity of collecting food resources (18%) and medicine (10%). This is shown in figure 9 above.

The respondents were asked to report whether they received compensation. About 22% of the respondents reported that they received compensation and 56% did not received it. About 73% of those who received compensation further reported that the compensation was in the form of money and 27% reported that it was in the form of building material (poles only). When asked whether they were satisfied with the compensation all respondents reported that they were not satisfied. In showing dissatisfaction some reported the matter to the tribal chief, others reported to the officials and the rest of the respondents did nothing. None of these attempts to get redress were successful.

4.6 Participation of Visitors in Outdoor Recreation

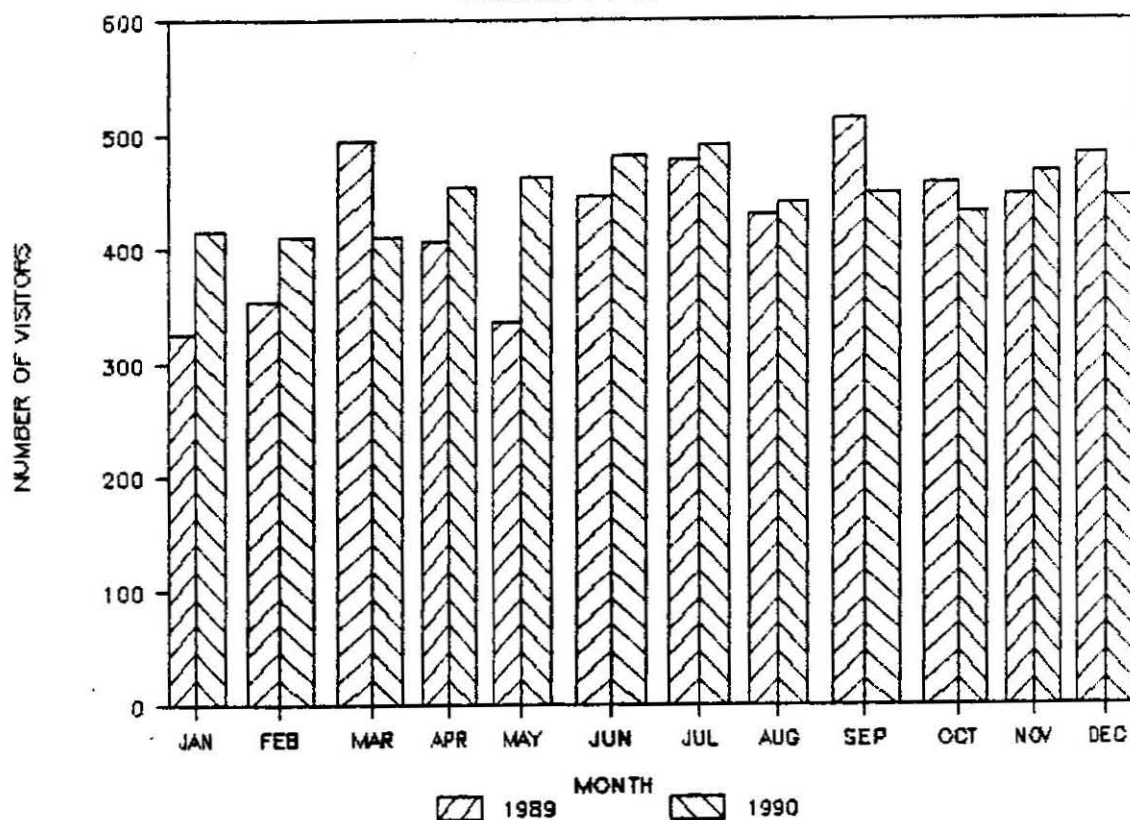
It should be reiterated that no respondents were participating in recreation as it is normal with visitors in the area. Data on the

participation of the visitors in outdoor recreation was obtained from the authorities of the Kosi Bay Nature Reserve. Manguzi Forest and Tembe Elephant Park were not opened to the public when the research was undertaken.

The features attracting visitors to the recreation resources were animals such as turtles and hippos; plants like raphia palms and mangrove forest; birds such as palm nut vulture which is unique in the area and the Kosi Lake System. The visitors engage in various recreation activities such as boating in the lake, braaing, fishing, camping, hiking to the Siyadla river at the Siyadla trail camp, walking for pleasure, picnicking, sightseeing swimming and canoeing in the Siyadla river.

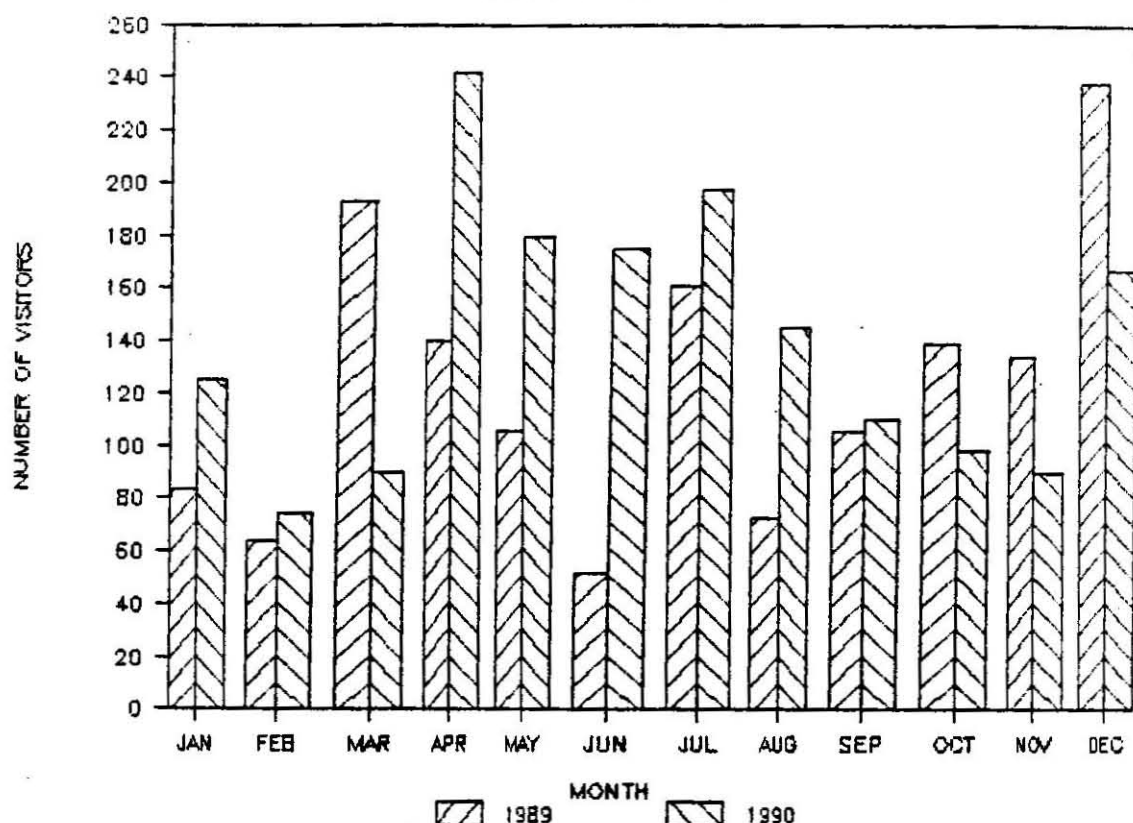
The number of visitors who spend more than one day in the resource is relatively high throughout the year. Monthly visits in 1989 and 1990 ranged from 235 to 514 individuals. The origin of these visitors is Transvaal (36%), Orange Free State (11%), Cape Province (9%), Natal (41%) and outside South Africa (3%). The majority of these visitors are whites. The analysis of visitors who spend more than one day in the recreation resource is shown in figure 10.

FIGURE 10: VISITORS WHO SPENT MORE THAN ONE DAY AT KOSI BAY NATURE RESERVE



The number of day visitors fluctuates according to the seasons. Figure 11 shows the analysis of day visitors in 1989 and 1990. Monthly visits of day visitors ranged from 64 and 242 (individuals). In 1989 the high number of day visitors was in March, June, July and December and in 1990 the number was high in April, May, June, July and December.

FIGURE 11: DAY VISITORS TO KOSI BAY NATURE RESERVE

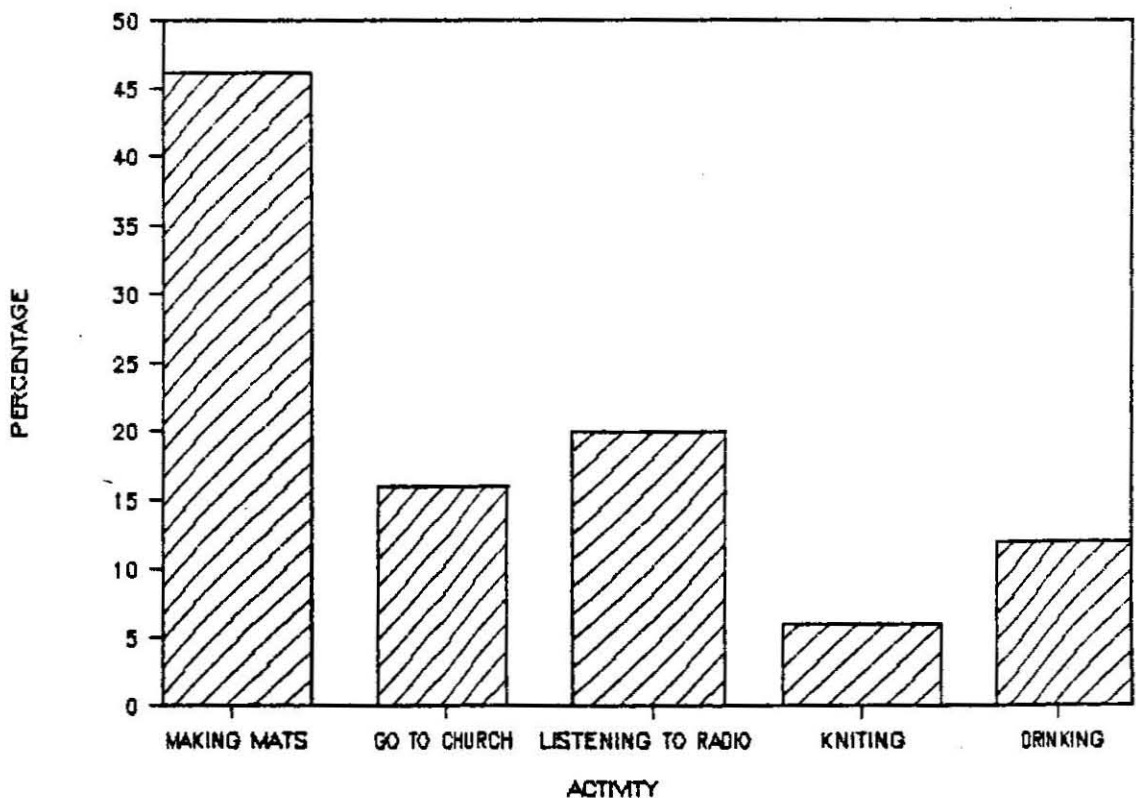


4.7 The Use of Leisure Time by Local Community Members

The respondents were asked to report the activities in which they engage during their leisure time. The activity engaged in by the majority of the respondents (46%) was the making of mats. Other respondents (20%) reported that they listen to the radio, drink with friends (12%) and knit jerseys (8%). It was noticed that the majority of the respondents (52%) still engage in activities associated with work during their leisure time (i.e. making mats

and knitting). The mats, jerseys and other household items which they make are mainly for selling. The analysis of the use of leisure time is shown in figure 12. A majority of the respondents (52%) were engaging in activities during the weekend, whereas other groups were performing their activities during week-days (24%) as well as during both the week-days and weekend.

FIGURE 12: ACTIVITIES DURING LEISURE TIME



A cross-tabulation of recreation activities during free time by sex revealed a significant relationship at 5% level. A Chi-square test value of 23.62 at a degree of freedom of 7 and the contingency coefficient of 0.6 was achieved. A significant relationship between sex and activities done during leisure time is possible because there are activities which are specifically performed by females only and activities performed by males only. In this study it was found that the activities which were performed by females were the making of mats, knitting and other household related items. Drinking with friends was engaged in by males only, and listening to the radio as well as going to church was undertaken by both males and females.

The respondents were given a list of nine outdoor recreation activities and requested to select those activities in which they engage. The respondents participated in only two outdoor recreation activities; about 38% of the respondents selected fishing whereas 8% selected swimming.

The lack of participation of the people in outdoor recreation can be attributed to many reasons. The study has shown earlier on that the majority of the people has a low socio-economic level. A number of studies which include Douglass, (1982) and Magi (1986) have shown that the socio-economic status affects participation

in outdoor recreation. High socio-economic status implies the availability of high disposable income which can be spent on outdoor recreation. Douglass (1982) also has a different view about rural people, that rural living provides closer contact with the natural environment. Also that outdoor living and contact with nature is part of everyday living. Considering the latter point of view, one can rightly conclude that outdoor recreation is not perceived as an urgent need by the rural people of low socio-economic status.

4.8 Community Members and the Development of Recreation Resources

The respondents were asked to reveal their feelings towards the development of the recreation resources within the study area. A total majority of respondents (100%) revealed that they were not satisfied with the manner in which the natural recreation resources were developed. The dissatisfaction was based mainly on the following reasons:-

- The taking away of land from the community members by the government agencies without consultation.
- Restrictions imposed on the use of natural resources which happen to be a source of living.
- The game guards adopting a harsh attitude towards member of

community.

- A lack of proper communication channels between recreation authorities and members of the community

These dissatisfactions are graphically presented in figure 13 below.

FIGURE 13: DISSATISFACTION OF COMMUNITY MEMBERS



NB Respondents had more than one dissatisfaction

A great controversy has emerged from the fact that the development of recreation resources results in the relocation of people who have benefited from living in those areas previously. Generally the resettlement of people in South Africa is always a sensitive issue because of the major role it has played in the policy of apartheid of the South African government. The movement of the people from the areas they have previously occupied, is seen as an extension of that policy, hence the strong sense of resentment.

TABLE 2: RANK SCORE AND RANK POSITION OF ITEMS
NEEDED PREFERENCE IN LAND-USE

ITEM	RANK SCORE	RANK POSITION
Agriculture	1.8	1
Housing	2.1	2
School	2.9	3
Church	4.5	4
Industry	4.8	5
Recreation Resources	4.9	6

The respondents were also asked to rank some infrastructural items which they consider important and a necessary prerequisite in land-use planning. Agriculture and housing were the most preferred infrastructural items and recreation resources were considered the least desirable item. This ranking is shown in table 2 above.

4.9 Potentiality of the Area of KwaNgwanase for Outdoor Recreation.

This section deals with the assessment of the area of KwaNgwanase as a potential source of outdoor recreation activities. Some of the information in this discussion is based on the ecological studies done in parts of the study area by (Tinley and Van Riet (1981)). The area may be divided into five ecological zones which run from north to south parallel to the coast line (See figure 14.). These are: coastal zone, coastal lake zone, palm-belt zone, sand forest zone and pongolo zone.

4.9.1 Coastal Zone

The coastal zone is characterised by long narrow beaches between the forested dunes and the Indian Ocean. The coast line also has the bays behind the dune rock points, like Banga Nek, Black Rock and Island Rock. The dunes are formed by the prevailing

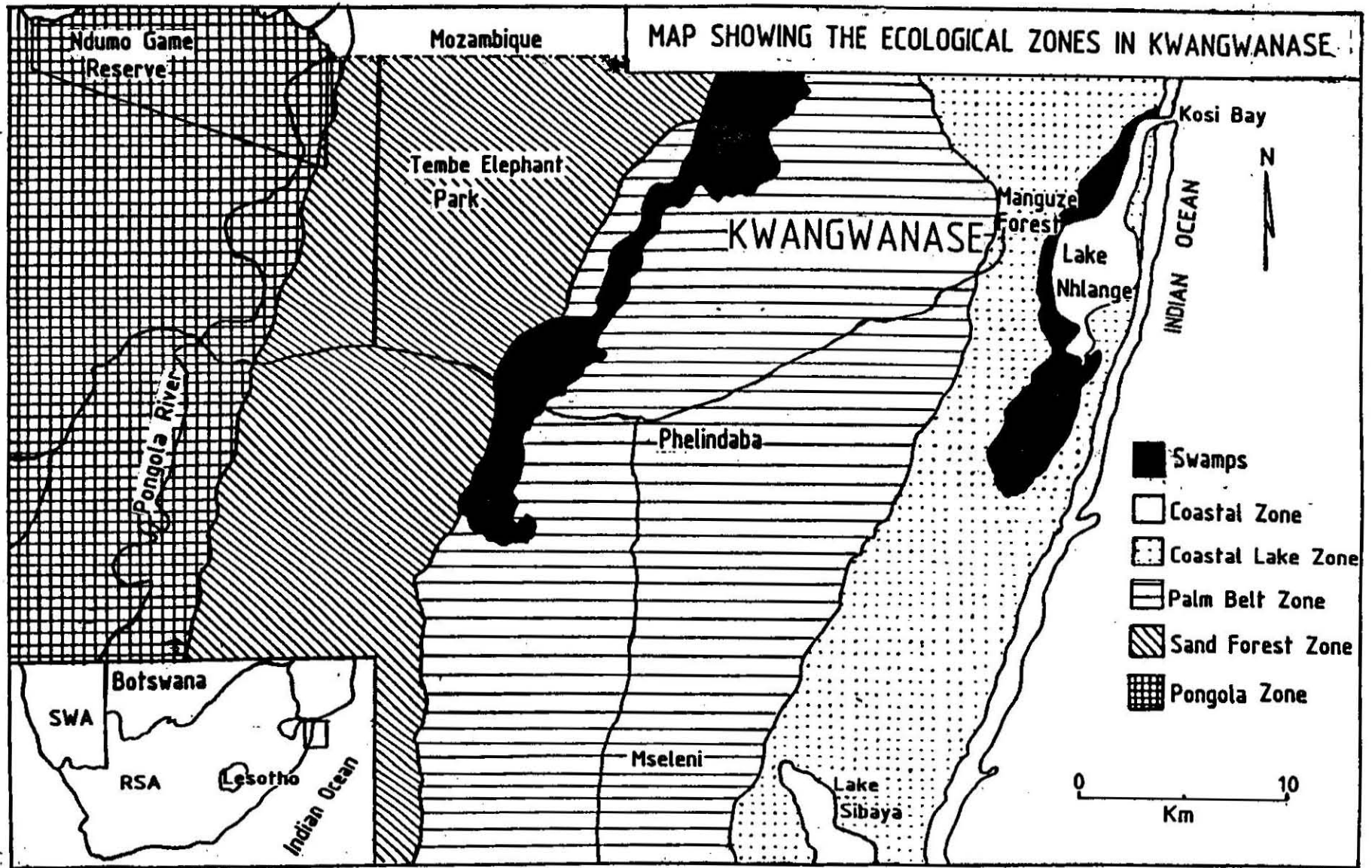


Figure 14: Map of Kwangwanase showing ecological zones,

north-east and southerly winds. The dunes are stabilised by dune forest. There are tropical coral reefs which provide an environment for the diversity of tropical marine life. About 1200 fish species have been recorded in the area (Mountain, 1990). The zone also provide an environment in which the giant leather back and loggerhead turtles come from the ocean to lay their eggs in nests which they dig in the beach.

The coastal zone provides an important source of protein for people living in the region in the form of fish, shellfish, mussels and other food resources.

The coastal zone also provide an important environment for outdoor recreation. The outdoor recreation activities include fishing, camping, swimming, diving, walking for pleasure, sightseeing, watching turtles and picnicking. It has been found earlier on that the outdoor recreation resources found in the coastal zone attract the the visitors to the Kosi Bay Nature Reserve. The development of these resources will stimulate tourism in the area.

4.9.2 Coastal Lake Zone

Coastal lake zone is characterised by a series of lakes like Kosi lake system and lake Sibaya, lagoons and swamps which link up behind a line of high littoral forested dunes. The zone has grasslands, swamp forest, evergreen forest and heavily wooded savannahs.

The Kosi lake system consists of four interconnected lakes, each with its own ecological characteristics. There is an estuarine basin in the northern end which leads to the first lake called Makhawulani. Makhawulani is connected to the second lake called Mpungwini which is connected to the third lake, Nhlangwe. Nhlangwe is the largest lake in the Kosi lake system (30 Km²). The fourth lake is called Manzanyma (Mountain, 1990).

There is a variety of plant communities in the shores of the lake system. The zone has swamp forest which contain variety of coastal and riverine forest trees. In the Kosi swamp forest there are giant raphia palms.

Coastal lake zone offers variety of resources for outdoor recreation. These resources are: lakes, forests, grassland and swamps. The outdoor recreation activities suitable for this zone include camping, boating, fishing, walking for pleasure,

sightseeing, canoeing and picnicking. Earlier findings have revealed that these outdoor recreation activities attract the visitors to the resources.

4.9.3 Palm-belt Zone

Palm-belt zone is located between the coastal lake zone and sand forest. A distinguishing feature of the zone is the predominance of the ilala palm. Variety of products derived from this plant are valuable and has an influence on the local economy. It is used for making crafts. The sap from the palms is used to make a nutritious wine called ubusulu. There is also a variety of plants found in the zone which include acacia scrub, flat-crown and tamboti. In the wetlands there are grasses and reeds.

There is very little wildlife in this zone which include reedbuck and duiker. Outdoor recreation activities suitable for this area include camping, picnicking, walking for pleasure and sightseeing.

4.9.4 Sand Forest Zone

Sand forest zone lies between the Pongolo flood plain and the palm-belt zone. The dominant feature in this zone are gentle undulating dunes which are accentuated by sand forest which grow along their crests and sides. This is the most sparsely populated zone in the area. Soils are very poor.

There are larger game animals like elephants (in the Tembe elephant park), grey duiker and reedbuck. There is a variety of birds.

Outdoor recreation activities suitable for the area include bird watching, game watching, camping, walking for pleasure, picnicking and sightseeing.

4.9.5 Pongolo Zone

The most important feature of this zone is the Pongolo river. There are very large areas of fertile soil with abundant water supply. There is a dense vegetation which include sand paper fig, wild date palms, natal mahogany, woodland water berry and cape ash.

There is a variety of the bird life in the Pongola river. About 50 species of fish have been recorded in the river and also in the pans.

Outdoor recreation activities suitable for this region include game viewing, sightseeing, walking for pleasure, bird viewing and picnicking.

The assessment of the potentiality of the area of KwaNgwanase for outdoor recreation has shown that the area has potential for outdoor recreation. The outdoor recreation activities suitable in the study area vary according to the recreation resources offered by the environment in the ecological zone. The coastal zone and the coastal lake zone is suitable for outdoor recreation activities related to water bodies.

4.10 Conclusion

This chapter has attempted to present the analysis and the interpretation of data as collected from subjects and reviewed literature. It has been shown that people are negatively affected by the development of outdoor recreation resources in the study area. People also use the recreation resources for their daily living activities but not for recreation purpose. It has also been shown that the study area has a potential for outdoor recreation.

CHAPTER 5

RECOMMENDATIONS AND CONCLUSION

5.1 CONCLUSION

This study has attempted to explore the geographical perspective of outdoor recreation in KwaNgwanase. The aims of the study were as follows:

- To examine the effect of outdoor recreation development on people's agricultural activities.
- To assess the potentiality of the study area for outdoor recreation.
- To examine the participation pattern of people in outdoor recreation.

The above aims were met in the sense that the data revealed the extent in which the people are affected by the development of outdoor recreation and the potentiality of the area for outdoor recreation as well as the manner in which the people participate in outdoor recreation.

The study has shown that the majority of the people are engaged in agriculture and at the same time the agricultural products are not sufficient for commercial purposes. The low agricultural

production result from the fact that soils in the area are poor. An exception to this occurrence is the fertile Pongola zone. Another reason is the lack of agricultural extension services in the area (Vara, 1989). This study has shown that people also experience other agricultural problems related to wild animals eating crops in the field.

In respect of the use of natural recreation resources, it was found that people use the resources for several other basic activities but not for recreation purpose. It is evident that the natural resources play a major role in the survival of the people in KwaNgwanase.

Regarding the impact of recreation development on people's activities, the study has shown that the manner in which the resources are developed is a source of stress to many people. In some instances, some people eventually loose their property, such as houses and fields.

On the use of leisure time by the community members it was found that majority of the community members engage in activities which are associated with work.

Community members were found to have a negative perception of the manner in which recreation resources are managed. This perception stems from advanced reasons such as: the taking away of land from

the people by the government agencies, restrictions imposed on the use of natural resources, a lack of proper communication channels and the the adoption of harsh by game guards towards the members of the community. It also became clear that the community members regard agriculture, housing and education as very important infrastructural items and need to be given first consideration in land-use planning.

The area of KwaNgwanase has a potential for outdoor recreation which has been shown by the statistics of the visitors in Kosi Bay Nature Reserve and also by the natural features important to outdoor recreation.

5.2 IMPLICATIONS

The conclusions met in this study has the following implications:

The area of KwaNgwanase has a low agricultural potential and crops produced do not satisfy the needs of the people. This suggests the need to introduce the modern methods of farming to improve agricultural potential.

The people of KwaNgwanase depend on the natural recreation resources for survival.

The development of outdoor recreation resources bring some problems to the community of KwaNgwanase. As a result the management of outdoor recreation resources is perceived negatively by the community members.

The area has a potential for outdoor recreation. This suggest that the development of the outdoor recreation resources is an important asset for economic development in the area when it is utilised in a manner in which the community members benefit.

5.3 RECOMMENDATION

In the light of the present findings, the following recommendations are suggested:

Findings in the study revealed that the community members are engaged in agriculture which does not yield enough produce. It is recommended that farming methods should be improved in the study area. There is a need for more agricultural extension services in the area so that people will get knowledge about the methods of farming which is bound to improve production.

It is generally accepted that the development of recreation helps in the development of rural areas which is in the form of the provision of employment opportunities to the local people and also by giving the community a portion of income which has been

generated through recreation in the area. However in this study it has been revealed that the development of recreation resources brings ill-feelings to the local community members which result from the fact that the above mentioned benefits of recreation have never been enjoyed by the community of KwaNgwanase. It is suggested that attempts be made to assure that the community members benefit from the recreation resources.

The study revealed that the people of KwaNgwanase consider agriculture, education and housing to be important priority fields. At the same time the area has a potential for outdoor recreation which can lead to the development of the area. It is therefore recommended that any development of outdoor recreation in the area must take into consideration the aspirations and the needs of the community members. There is a need for striking a balance between outdoor recreation and agriculture when land-use planning is done.

It has been revealed that the dissatisfaction of the community members was based on the manner in which the outdoor recreation resources were managed. The study recommends that the planning and the management of outdoor recreation resources should involve the participation of community members of KwaNgwanase. When the community members participate in planning, their feelings and

aspirations will be catered for, and the communication between the community and the outdoor recreation authorities will be facilitated.

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APPENDIX-A

QUESTIONNAIRE
(To Community Members)

Questionnaire No
Date

1 PERSONAL BACKGROUND:

1.1. How old are you?

- [1] Less than 18 years
- [2] Between 18 and 30 years
- [3] Between 30 and 40 years
- [4] Between 40 and 65 years
- [5] Above 65 years.

1.2. Sex

- [1] Male
- [2] Female

1.3. Level of education

- [1] No education
- [2] Lower primary education
- [3] Higher primary education
- [4] Junior secondary education
- [5] Senior secondary education
- [6] Tertiary education

1.4. Place of birth

- [1] In the study area (Kwa-Ngwanase)
- [2] Outside the study area (Specify)

1.5. Where do you live?

- [1] Manguzi
- [2] Sihangwane
- [3] Mazambane
- [4] Melangeni
- [5] Other (specify)

1.6. How long have you been staying here?

- [1] 0 - 2 years
- [2] 3 - 5 years
- [3] 6 -10 years
- [4] More than 10 years

1.7. Marital status

- [1] Single
- [2] Married
- [3] Widow
- [4] Other (Specify)

1.8. Occupation

- [1] Professional work
- [2] Skilled work
- [3] Semi-skilled work
- [4] Unskilled work
- [5] Farming (agriculture)
- [6] Other (Specify)

1.9. Size of the family (including yourself).

- [1] 1 - 4
- [2] 5 - 8
- [3] 9 - 12
- [4] More than 12

2. INFORMATION ABOUT AGRICULTURAL ACTIVITIES

2.1. Do you plough field in your area?

- [1] Yes
- [2] No

2.2. What crops do you plant?

.....
.....
.....
.....
.....

2.3. What is the size of your field?

.....

2.4. Do you sell the crops you produce in the field?

- [1] Yes
- [2] No

2.5. What problems do you encounter in this area concerning your cultivation?

.....
.....
.....

3. INFORMATION ABOUT NATURAL RESOURCES

3.1. What type of natural recreation resource nearer to your field or place of residence?

- [1] Game park
- [2] Lake
- [3] Forest
- [4] River
- [5] Beach
- [6] Other (Specify)

3.2. What do you use this natural resource for?

- [1] Collect firewood
- [2] Fishing
- [3] Collect medicine
- [4] Hunting
- [5] Recreating
- [6] House building
- [7] Other (Specify)

3.3. Do you have access to the natural resource?

- [1] Yes
- [2] No

3.4. Who do you think own these natural resources?

- [1] The Government
- [2] The Community
- [3] Business enterprise
- [4] Nature conservationist
- [5] Myself
- [6] Others

3.5. Have you used any of these resources for the purpose of establishing any of the following items?

House	[1] Yes	[2] No
Fields	[1] Yes	[2] No
Food sources e.g. fishing	[1] Yes	[2] No
Medicine e.g. bark	[1] Yes	[2] No
Play area	[1] Yes	[2] No

3.6. If No give reasons?

[1] House
.....

[2] Fields
.....

[3] Food resources

[4] Medicine

[5] Play area

3.7. Are you satisfied with the manner in which these Natural resources are used?

[1] Yes

[2] No

3.8. If No, what is the reason?

.....
.....
.....

3.9. Were any of the items mentioned in 3.5 been taken from you?

[1] Yes

[2] No

3.10. If the answer for the question 3.9 is YES, which items were taken and give reason why the items were taken?

ITEM	REASON
1.....
2.....
3.....
4.....
5.....

3.11. If the answer for the question No 3.9. is YES, was compensation given?

[1] Yes

[2] No

3.12. In what form was the compensation?

- [1] Money
- [2] Building material
- [3] Land
- [4] Other (Specify)

3.13. Were you satisfied with the compensation?

- [1] Yes
- [2] No

3.14. If you were not satisfied, what did you do?

- (a)
- (b)
- (c)

3.15. Who do you think should manage the natural resources?

- [1] The Government
- [2] The Community
- [3] Business enterprise
- [4] Nature Conservationist
- [5] Myself
- [6] Others (Specify)

3.16. Are you satisfied with the manner in which these natural recreation resources are managed?

- [1] Yes
- [2] No

1.17. If no, what do you think is wrong?

.....
.....
.....

3.13. If land is used for important priorities, what do you think should be given preference? (Please rank your responses according to the order of preferences).

No

- | | |
|---------------------------|-------|
| (a) For Agriculture | [1] |
| (b) For Natural resources | [1] |
| (c) For School | [1] |
| (d) For Housing | [1] |
| (e) For Church | [1] |
| (f) For Industry | [1] |

4. INFORMATION ON THE USE OF LEISURE TIME

4.1. What do you do during your free time?

.....
.....
.....

4.2. When do you usually have your free time?

- [1] During the week
- [2] During the weekends
- [3] Both
- [4] Never

4.3. Tick the outdoor activities you engage in during your free time.

- [1] Site seeing
- [2] Visit scenic sites
- [3] Camping
- [4] Picnicking
- [5] Swimming
- [6] Fishing
- [7] Hiking
- [8] Canoeing
- [9] Walking for pleasure

APPENDIX -B

QUESTIONNAIRE: OUTDOOR RECREATION PATTERN IN KWANGWANASE

Respondent

This questionnaire requires information on outdoor recreation resources. You are requested to respond to it as sincerely as possible. All your responses are treated as strictly confidential. Your name is not needed in this survey.

Thank you.

QUESTIONNAIRE
(On Recreation Resources)

Questionnaire No.....

Date

1. Name of the recreation resource

2. In which year was the Resource established

3. The size of the resource (hectares)

1	-	100	[1]
101	-	500	[2]
501	-	1000	[3]
1001	-	5000	[4]
5001	-	10 000	[5]
10 001	-	50 000	[6]
Above		50 000	[7]

4. What features attract the people to the resource? (specify)

4.1. Animals (Turtles)

4.2. Plants (Raphia palms)

4.3. Land form

4.4. Waterbody

4.5. Others (Specify)

5. Total number of visitors: in 1988

in 1989

in 1990

6. Percentage of visitors by ethnic group:

ETHNIC GROUP	1988	1989	1990
Whites%%%
Indians%%%
Coloureds%%%
Blacks%%%

7. Percentage of visitors by origin:

PLACE OF ORIGIN	1988	1989	1990
Local area%%%
Natal%%%
Transvaal%%%
Orange Free State%%%
Cape%%%
Outside S.A.%%%

8. Percentage of visits by seasons:

SEASON	1988	1989	1990
Summer%%%
Autumn%%%
Winter%%%
Spring%%%

9. Tick [] the activities in which the visitors engage during their visit to this resource.

Boating	[1]	
Braaing	[2]	
Fishing	[3]	
Hunting	[4]	
Camping	[5]	
Hiking	[6]	
Walking for pleasure	[7]	
Picnicking	[8]	
Sightseeing	[9]	
Swimming	[10]	
Other (specify)	[11]

10. Tick [] the facilities available in your resource:

Huts/Rondavel	[1]	Toilet	[6]
Picnic sites	[2]	Camp sites	[7]
Fishing place	[3]	Braai-spots	[8]
Swimming place	[4]	Trails	[9]
Hunting place	[5]	Showering place	[10]

Water activities	[11]	Outdoor education	[15]
Tap water	[12]	Child play area	[16]
Refreshment stand	[13]	Public transport	[17]
Car-parking	[14]		

11. Give the number of people employed in the nature resource.

RANK (Give the rank of the post starting with the senior rank)	NO OF MALES	NO OF FEMALES
1.....
2.....
3.....
4.....
5.....
6.....
7.....

12. Out of people employed give the number of people from the local area and people from outside this area. (Local area refers to the area where the nature resource is situated).

RANK (Give the rank of the post starting with the senior rank)	NO OF PEOPLE FROM LOCAL AREA	NO OF PEOPLE FROM OUTSIDE AREA
1.....
2.....
3.....
4.....
5.....
6.....
7.....

APPENDIX -C

University of Zululand
P. O. Box 170
KWADLANGEZWA
3886
01 June 1990

The Director
Bureau of Natural Resources
Private Bag X01
ULUNDI
3838

Dear Sir

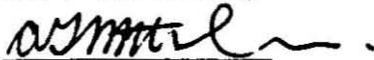
PERMISSION TO CONDUCT RESEARCH

I am writing this letter to ask for the permission to conduct research in the nature reserves in Kwa-Ngwanase. The study is aimed at finding the state of recreation resources and the extent to which people participate in the outdoor recreation. I will concentrate on Tembe Elephant Park, Manguzi Forest and Kosi Bay Nature Reserve. This research is a requirement in the Geography honours course.

It is hoped that the research will come out with the useful information that will help in the planning for outdoor recreation in the study area.

Your permission to do this research will be highly appreciated.

Yours faithfully



AMOS T. MTHEMBU

University of
Zululand

Universiteit van
Zoeloeland



Private Bag X1001
Privaatsak
KWADLANGEZWA 3886
South Africa
(0351) 93911
'Unizul'
SA 631311
FAX (0351) 93735

Ref./Verw.

TO WHOM IT MAY CONCERN

This is to certify that Mr A T Mthembu is a registered student of the University of Zululand.

This letter also serves to confirm that the said student is doing his research project for the Honours degree in the Department of Geography and Environment Studies.

The title of his project is

"Outdoor Recreation Resources in KwaNgwanase"

It will be appreciated if he would be allowed access to the sources of information in the area under your jurisdiction.

Yours sincerely

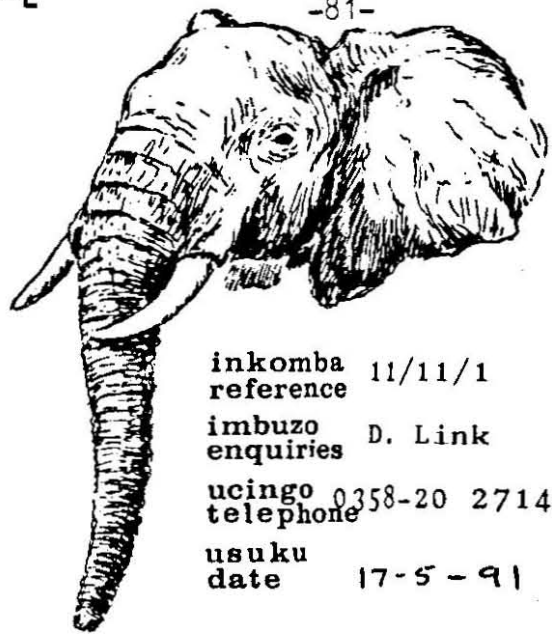
VICE RECTOR (A A and R)
UNIVERSITY OF ZULULAND
P/BAG X 1001
PROF A J THEMBELA KWA-DLANGEZWA 3886

VICE-RECTOR

ACADEMIC AFFAIRS AND RESEARCH

AJT/tm

UMNYANGO WEZOMNOTHO
DEPARTMENT of ECONOMIC AFFAIRS
 incorporating the
BUREAU of NATURAL RESOURCES
UPHIKO LWENGCEBO YESISWE



inkomba 11/11/1
 reference
 imbuzo D. Link
 enquiries
 ucingo 0358-20 2714
 telephone
 usuku
 date 17-5-91

Mr A.T. Mthembu
 University of Zululand
 P.O. Box 170
 KWADLANGEZWA
 3886

Dear Mr Mthembu,

RESEARCH OUTDOOR RECREATION IN KWANGWANASE.

The KwaZulu Bureau of Natural Resources has no objection to you conducting research in the above area and you may proceed with this.

I would request that you comply with the following conditions to avoid any confusion.

1. That should you require to enter any of the game or nature reserves under the control of the Bureau you follow the following procedure.
 - (a) Contact the officer in charge on or before entry.
 - (b) Produce this letter of authority.
 - (c) You comply at all times to the rules and regulations for that reserve.

It is suggested that you contact the regional conservator



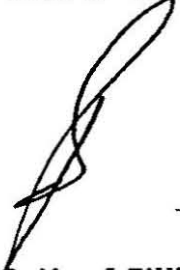
isikhwama seposi) x23 Ulundi
 private bag 3838

ikheli locingo
 telegraphic address) EZOMNOTHO

2/...

(Mr D. Archer) on tel (035672) ask for double one, before you enter any reserve which does not have an officer in charge on the station. Mr Archer is based at our regional office at Jozini.

Yours faithfully

A handwritten signature in black ink, appearing to be 'D.M. Link', written over the typed name.

D.M. LINK

HEAD : ENVIRONMENTAL CONSERVATION
AND ADMINISTRATION
for DIRECTOR