PLANNING FOR RECREATION FACILITIES ON NIGERIAN UNIVERSITY CAMPUSES: Proposals for A.B.U. Main Campus,

M.SC. (U.R.P.) Thesis

BY

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DEDICATION

To my late Mother Hajiya Sabitiyu Titilola and Step Mother Hajiya Munirat Titilola (17th February, 1983).

And

also to my husband Abdulkareem and son Mohammed Nasir.

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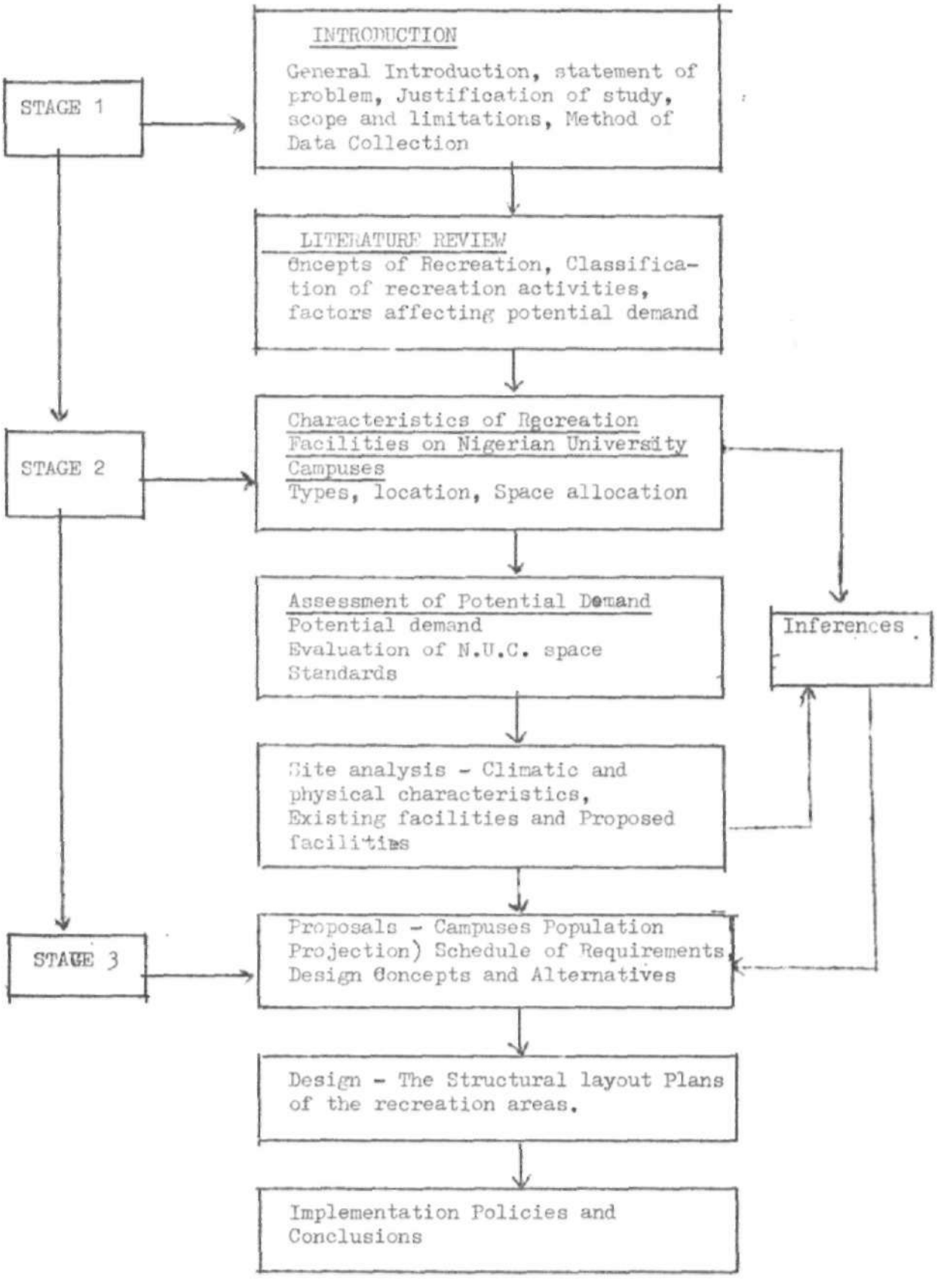
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THE CONCEPTUAL FRAMEWORK OF THESIS -



CHAPTER ONE

1:00 GENERAL INTRODUCTION

Recreation refreshes the mind and the body thus preparing people for intellectually and economically gainful work. There are three major functions which recreation performs these are relaxation, entertainment personal and social development. "Recreation, as relaxation provides a respite from work; a period in which the individual can rest mentally and physically from the demands of work and other necessary chores. As entertainment, it provides an antidote to the boredom and repitition that are often involved in work, inpersonal and domestic chores, and in retirement. And as a meand of personal and social development it serves to allow the individual to develop along lines which may contrast significantly with the often restrictive thoughts and actions that work and other chores may permit". Therefore, recreation is a necessity for everyone, irrespective of age, sex, levels of education and income.

A University has been described as "a society of individuals living and working together for advancement of learning and dissemination of knowledge at the highest possible level of

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1. Burton, L.T. (1971) "Experiments in Recreation Research, p. 20.

intellectual achievement and spiritual aspiration"[2]. In order to achieve the goals there is need for University planning system which takes into consideration the relationships between working, living and recreation, since they are all integral parts of human development, complementing one another. Thus providing an environment which promotes optimal academic performance and social interaction.

In Nigeria recreation has always been part of social life. The traditional cities were characterized by open spaces, like the market squares, the ceremonial squares and open spaces within the walled compounds, which were used for various recreation activities. The colonial era witnessed the introduction of modern recreation facilities like swimming pools and althletic fields. Furthermore, the introduction of white collar jobs with accompanying income and leave, accentuated the awareness for recreation. Despite the growing awareness for recreation, because of increasing levels of income, education and mobility, the post colonial era is marked by the non-chalant attitudes towards provision of recreation facilities by the authorities concerned.

The Nigerian Universities are among such authorities, they have in the past placed more emphsis on provision of academic and residential facilities, giving little attention to recreation facilities.

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2. Richard, P. Dober (1965). The New Campus in Britain, Ideas and consequences for the United States; Educational facilities Laboratory, New York, p. 48.

1:2 STATEMENT OF PROBLEM -

Since the establishment of the first indigeneous University in 1960, there has been considerable increase, not only in the number of Universities, but also in students and staff population in each of these Universities. (See figure 1:00 for location of Universities in Nigeria). Infact student enrolment for degree courses in Nigerian Universities increased from 1,400 in 1960 to about 70,000 in 1980. The number of Universities grew from one (1) in 1960 to about twenty-eight (28) in 1984. "for the 1984/85 academic session erolment of 180,000 students has been forecasted for Nigeria".[3] "Considering the expected participation rate of 5% in university education by relevant age group, enrolments in 1990/91 could be as high as 450,000".[4] This increase in population means increase in demand for recreation facilities, considering the high level of education of the university population coupled with the high income level and the fact that a large proportion of the University population fall into the 'active age group' (15 - 35 years). However, studies have shown that some recreation facilities provided on these campuses are inadequate, while others are not well planned as a result there is over utilization of some facilities and underutilization of others that are not required. Furthermore, there is lack of variety and this limits users' choice.

3,4 Bwilwa, M.B. (1982). Planning for Federal University of Technology, Bauchi. p.3.



FIG.110 Location of universities (1983)

In order to solve these problems there is need for a planning system which strives at achieving a balance between planning for academic, residential and recreation facilities.

1:3 JUSTIFICATION OF STUDY

Planning for recreation is as important as planning for academic and residential facilities, since recreation "..... creates opportunities for self expression thereby allowing individuals to develop their inherent potential and achieve desired satisfaction"[5]. Thus improving individuals output and their contributions towards the development of the society.

Past experience has shown that haphazard provision of facilties is rarely entirely satisfactory. Hence there is need to make realistic assessment of probable demand for recreation facilities taking cognizance of past trends, future population structure and the various factors influencing participation and demand. This demand has to be converted into recreation areas in suitable locations.

Prior to the birth of National Universities Commission (N.U.C) in 1975, most of the old universities developed without Master plans to guide the developments. The Ahmadu Bello University Zaria is one of such old universities that developed

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5. Seeley, I.H. (1977) "Outdoor Recreation and the urban environment" p. 3.

organically. Established in 1962 with about 400 students, today the main campus alone has about 8,600 staff and 9,200 students. However, the recreation facilities provided on the campus, like those elsewhere, are inadequate and not well planned for. Furthermore, the university is located in Zaria town which has little to offer as far as recreation facilities are concerned. Hence the need to plan for recreation as a means of improving academic performance and social interaction both within the campus community, and between the city residents and the campus population (see figure 1:00 for location of study universities).

1:40 AIMS AND OBJECTIVES

Therefore the aims of this study are :-

1) To appraise existing recreation facilities on some Nigerian university campuses with a view to determining their adequacy and functional efficiency.

2) To propose recreation facilities for Ahmadu Bello University Main Campus, Zaria.

The aforesaid goals shall be achieved through the following objectives:-

1) To identify the types of recreation facilities provided on some Nigerian university campuses and examine their locational relationships with other campus elements.

2) To compare existing recreation areas on some Nigerian university campuses and evaluate the N.U.C. space standards in order to establish the planning standards, principles and concepts.

3) To assess the needs for recreation facilities on some Nigerian University Campuses and to propose improvements to existing recreation facilities and the provision of new ones where necessary on Ahmadu Bello University Main Campus with detailed design of some recreation areas.

4) To suggest implementation policies and programmes.

1:50 SCOPE AND LIMITATIONS

The study covers an examination of the recreation facilities provided on some federal university campuses in terms of the type location and space allocation, and an evaluation of the N.U.C. standards for recreation planning.

Space requirements calculations are based on the N.U.C. standards and modified by the needs of the campus community.

Cost estimates, detailed design of building and other structures will not be produced.

1:60 METHOD OF DATA COLLECTION

The study commenced with a reconnaissance survey of the existing facilities on selected campuses, with the view to determining the types, their locational relationships with other campus elements (namely central core, academic area, residential area and communal area), and space allocated to such facilities.

The second stage involved administering of questionaires. The first set of questionaires were administered in eight Nigerian Universities, namely University of Ife, University of Jos, University of Sokoto, Federal University of Technology Bauchi, University of Ilorin, Bayero University Kano, University of Benin and Ahmadu Bello University, Main Campus, Zaria. The second set of questionaires were administered in four universities, namely University of Ife, University of Ilorin, University of Jos and Ahmadu Bello University main campus, Zaria.

The aims of the questionaires were to assess the potential demand for recreation facilities, and to determine the degree of users satisfaction/dissatisfaction with the view of reviewing the N.U.C. space standards.

Secondary informations for recreation facilities and space standards were derived from master plans, survey reports and draft master plans for various universities, unpublished works, Journals and textbooks. These helped in establishing the basis for

understanding the existing situation and deriving planning concepts, principles and standards for proposals.

Relevant informations were also obtained through personal interviews with some National University Commission officials, Students and Staff.

CHAPTER TWO

2.00 LITERATURE REVIEW

2:10 DEFINITIONS AND EXPLANATORY NOTES -

a) Recreation - "is any form of experience or activity in which an individual engages from choice because of the personal enjoyment and satisfaction which he receives"[1].

b) Leisure - refers "to all time beyond the existence and subsistence time"[2]. That is to say leisure is time available after the practical necessities of life (like work, sleep and feeding) have been attended to.

c) Sport - has been defined as "a physical activity in the form of structured games or play for the purpose of recreation or amusement in leisure time and containing an element of competition against self, opponent or the elements."[3]

d) F.T.E. - Full time equivalent students, this refers to "the number of students actually receiving tuition within the department as opposed to the number enrolled in that department."[4]

1,3 Seeley, I.H. (1977) op. cit, p.3

2. Fischer, D.W. et al (1974) "Land and Leisures. Concept and Methods in outdoor recreation", p.3.

4. National Universities Commission (1977) standard Guide for Universities.

2 e) Recreation planning is the intelligent use of the recreation resources in providing satisfactory recreation facilities and areas to meet present and future needs of the population. It helps to determine types, quantity, location and timing of recreation development."[5]

2:20 CONCEPTS OF RECREATION

Recreation is not an easily defined term, because it is a matter of personal interest, therefore it has been given different meanings by different writers, some of these definitions include the one given by Clawson and Knetsch (1966), according to these two "Recreation is basically a renewal or preparation for routine or necessary work or means of escape from it".[6] The main purpose of recreation is to revitalise people so that they may efficiently return to activities which are economically and/or intellectually gainful." The distinguishing characteristic of recreation is not the activity itself but the attitude with which it is undertaken"[7] This approach shows how recreation contrasts with work, which is done mainly for the purposes of existence and subsistence.

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5. Douglass, R.W. (1977) "Forest Recreation", p. 69

6,7. Clawson, M. and Knetsch, J.L. (1966) "Economics of outdoor Recreation" p.6.

Butler (1959) defined recreation as "any activity which is not consciously performed for the sake of any reward beyond itself, which is usually engaged in during leisure, which offers man and outlet for his physical, mental and creative powers, and in which he engages because of inner desire and not because of outer compulsion. The activity becomes recreation for the individual because it elicits from him a pleasurable and satisfy satisfying response".[8] This is a rather comprehensive approach and Seeley (1973) attempted a summary of this view, he defined recrea·ion as "any from of experience or activity in which an individual engages from choice because of the personal enjoyment and satisfaction which he receives"[9]. These two concepts identified the personal nature of recreation and indicate why recreation activities are as diversified as the interests of man.

In Burton's (1971) opinion recreation is "activity which man engages in during his free time which does not include work, nor does it include certain personal and social obligations that all people have such as sleeping and washing".[10] After stating what recreation is not he went on to define recreation as, "..... participation in any pursuits other than those associated with work and necessary tasks of a personal and social nature, which a person undertakes freely for purposes of relaxation, or entertainment or for his own personal or social development".[11]

8,9. Seeley, I.H. (1973) Op. Cit. p. 2

10,11. Burton, T.L. (1971) "Experiments in Recreation Research" p. 19.

This approach also identifies the diversified and personal nature of recreation which makes it worthwhile to first define what recreation is not before stating what it is.

According to Ratcliffe (1981) "recreation in any socially accepted sense involves constructive activities for the individual and the community"[12]. The concept emphasised the productive aspect of recreation, since it revitalises people so that they may efficiently return to activities which are not recreational but economically and/or intellectually gainful to the individuals and the community.

Meyer and Bright Bill (1956) have attempted to identify the basic characteristics of recreation, to them recreation involves activity "..... be it physical, mental or emotional and it has no single form, as the range of activities which people enjoy during leisure is almost limitless".[13] "Recreation is determined by motivation, is fundamentally an attitude of mind and occurs in 'unobligated' time. Engagement in recreational pursuits is entirely voluntary as the moment participation becomes compulsory the activity ceases to be recreation.. Recreation is universally practised and sought and can take place in a variety of settings, can be organised or unorganised enjoyed alone or in groups. Recreationalist are often quite serious when absorbed in activities from which they secure satisfaction and pleasure finally it has by-products in that

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12. Ratcliffe, J. (1981) "An Introduction to Town and Country Planning". p. 362

13, 14. Seeley, I.H. (1973) Op. Cit, p.3.

recreation can reward the participants in terms of intellectual, physical and social growth, better health, improved citizenship and in other qualities of personal development".[14] This approach encompasses various concepts that have been mentioned earlier on.

At this point it is necessary to consider briefly the relationship between recreation and leisure which are often taken to have similar meanings.

Dumazedier (1962) defined leisure as "activity to which an individual may freely devote himself outside the needs and obligations of his occupation, his family and society, for his relaxation, diversion and personal development".[15] This concept views recreation and leisure as synonymous.

Burton (1971) attempted to distinguish recreation and leisure on the basis of functions. In his opinion "..... recreation encompasses the functions of relaxation and entertainment, while leisure is concerned with personal and social development"[16]. In this approach the difference between leisure and recreation is not clear cut, because many pursuits can be undertaken for two or more of these purposes at the same time.

To most people recreation is activity or inactivity of special kinds, whilst leisure is time of a special kind.

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15. Ibid 14, p. 2
16. Ibid 10, p. 20

Recreation is leisure activity, but not all leisure is devoted to recreation. A leisure activity becomes recreational, if the motive is enjoyment and personal satisfaction and the performance of the activity has its own appeal.

The diversified natuxe of activities that come under recreation has instigated many writers to attempt classifying pursuits into groups of various kinds.

2.30 CLASSIFICATION OF RECREATIONAL ACTIVITIES

2.31 CLASSIFICATION BASED ON PURPOSES AND PLACES OF PERFORMANCE

a) Cultural recreation or the arts, these include:-
drama, opera, singing and dancing.

b) Social recreation includes:-
dining out, visiting the pub and going to parties.

c) Sports and physical recreation include:-
games and informal play.

d) Country side recreation includes picnicking and camping

e) Holiday and tourist recreation:-

2.32. ACTIVE AND PASSIVE RECREATION - based on the efforts that is required for participation.

a) Active pursuits involve streneous participation, such as required in sports.

b) Passive pursuits make far fewer physical demands such as picnics and sight seeing.

2.33 FORMAL AND INFORMAL RECREATION - based on the degree of organization that is required for the pursuits.

a) formal pursuits require high level of organization these include mainly team sports like football, hockey, handball and volley ball.

b) informal pursuits are essentially unorganized such as picnics, hikes, fishing expeditions and strolling.

2.34. OUTDOOR AND INDOOR PURSUITS

The major determinant here is location of the facilities that are required for the pursuits.

a) Outdoor recreation is performed outside a house or a building.

b) Indoor recreation is performed inside a house or a building. There are some borderline activities, that can take place either outdoors or indoors. Basket ball courts are typically indoors, yet on occasion are outdoors, track activities are typically outdoors, yet

often are held indoors. Outdoor recreation obviously requires space and resources, sometimes large quantities for its enjoyment.

For the purpose of this study the outdoor and indoor classification has been adopted since the major determinant is location which can be easily defined and not human factor.

2.35 TRADITIONAL RECREATIONAL ACTIVITIES -

Ojo (1978) has attempted to categorise traditional recreation activities based on organization and places of performance. These include:-

a) home based recreational activities held in compounds or along verandahs such as the 'Ayo games' and story telling accompanied by dances in the evenings.

b) Activities associated with social groups such as age mates and these include wrestling in the city or village square.

c) Recreational activities organized by professional groups in the form of annual festival such as fishing and hunting festivals.

d) Activities associated with religious practices which include singing, drumming and dancing.

Classification helps the investigator to establish different recreation to establish different recreation types on the basis of which it may be possible to predict future demands for various kinds of facilities. The purpose for which a classification is required determines it usefulness, no one classification is sufficient for all purposes and those outlined above are not mutually exclusive.

Participation and demand are important elements in recreation planning, therefore it is necessary to identify the various factors which affect these elements.

2.40. FACTORS AFFECTING PARTICIPATION AND POTENTIAL DEMAND

2.41 DEMOGRAPHIC FACTORS

Increase in population means increase in demand for recreation facilities. However, some components of the population particularly age and sex are of great relevance for recreation planning.

a) Age - the youths are more active than the old because of the physical effects of ageing and the consequent disinclination, with advancing years, to participate in more vigorous pursuits.

b) Sex - women participate less in vigorous activities like sports, this is particularly true for married women.

2.42 SOCIO-ECONOMIC FACTORS -

a) Education - the relationship between participation in recreation and education, is a reflection of the influence education has on occupation and income level. However, more important is the fact that educated people are more exposed to a variety of ideas and experiences which broaden leisure interests and promote habits of varied participation. Hence, people with high level of education are expected to participate more in recreation and increase potential demand for recreation facilities.

b) Vehicle ownership - increasing mobility means greater participation in recreational activities, especially if the facilities are located away from residential areas.

c) Level of income - high income level means greater participation in recreation, especially in case of activities that require expensive equipments like golf.

2.43 TIME FACTOR -

Many activities need relatively long uninterrupted period of time if they are to be fully enjoyed, therefore if the time available is short participation in recreation will be less and vice - versa.

2.50 EFFECTS OF PARTICIPATION/DEMAND FACTORS ON RECREATION IN UNIVERSITY COMMUNITY.

2.51. AGE AND SEX -

The university community consists of the students, the staff and their children, a great number of these people fall into the 'active age group' (15-35), they possess greater energy for recreation and are expected to participate more in recreation. Therefore making greater demands on recreation facilities irrespective of their sex.

2.52 LEVEL OF EDUCATION

A university is regarded as the institution in which the most advanced level of education is given, it then follows that participation and consequently demand for recreation facilities will be high in such community.

2.53 VEHICLE OWNERSHIP

On a university campus the effect of vehicle ownership on participation and potential demand depends on the locational relationships between places of work, living and recreation. Vehicle ownership may not affect participation and demand if facilities are located within easy walking distance of the campus community especially the students. However this element becomes more important if facilities are located away from places of work

and/or residence thereby imposing unnecessary walking distance on pedestrians. Furthermore, if the facilities required are provided outside the campus, mobility may increase participation and demand.

2.54 LEVEL OF INCOME -

High income may not affect participation and demand for recreation on a university campus, because campus facilities are nor necessarily sold, they are provided by the authority for the purposes of improving academic performance and social interaction and not necessarily to make profits, so that in cases where they are even costed it is always within the limit of what the people can afford to pay.

2.55. TIME FACTOR -

Perhaps this is the most important determinant of participation in recreation on university campus. The time available for recreational pursuits to both staff and students depend on working hours, which vary from one department to another. Students and staff from department with less working hours are expected to participate more in recreation and therefore make greater demand on recreation facilities than others.

2.60 WORKS ON DEMAND FOR RECREATION IN NIGERIA -

Most of the works on recreation in Nigeria have considered the various factors outlined above in determining users preference and users satisfaction for the purpose of proposals. Some of these works shall be considered for the purpose of this study, though most of them have been done at urban level, they form the bases for understanding the existing situation in Nigeria and in deriving planning concepts, principles and standards.

Smitten (1975) in designing a user oriented system of parks and open spaces for Jos identified users' preferences and demand, based on these elements, she established standards and principles for proposals.

Ipinniwa (1977) in planning leisure - time activities for Zaria residents, assessed the facilities available for recreation, using the activity systems concept he analysed the behaviour pattern of the people, he then went on to make proposals based on users preferences and anticipated demand.

In a study on provision of recreation open spaces for Ilorin, Alassan (1979) evaluated the existing facilities, identified the recreation potentials, present and future demands, Hierachies of open spaces were then proposed based on these findings.

Jegede (1981) in planning for parks and recreation facilities in Lagos Metropolis, followed the pattern of the previous works and established transportation as the major constraint on participation in recreation, as a result of which a great proportion of the population spend their leisure time indoor.

Shalfanda (1982) designed outdoor recreation centre for Yola, having assessed the resources available for recreation, the existing facilities and the needs of the people.

Adebisi (1983) related Socio-economic and demographic variables to facilities needed and then provided the desired recreation facilities on a selected site on the Zaria- Kaduna axis.

Ayorinde (1981) in proposing a conceptual model for campus planning and design in Nigerian suggested hierarchy of open-spaces for recreation. Though his suggestions were not based on findings from users' surveys that recreation planning deserves, because his major concern was not planning for recreation, it is an attempt at integrating recreation planning with other elements of university planning.

From the anlysis of the previous works, it is apparent that recreation area planning in Nigerian universities is yet to receive due attention from researchers, despite the increase in Campus

population, income level and the growing awareness for recreation. Recreation if planned for helps in attaining academic excelllence.

This study will assess the needs of the campus population, the resources available for recreation and the existing facilities available for recreation.

CHAPTER THREE

3.00 CHARACTERISTICS OF RECREATION FACILITIES AND ASSESSMENT OF DEMAND ON SOME NIGERIAN UNIVERSITY CAMPUSES.

Provision of recreation facilities is determined by demand, types of existing facilities and space availability.

Demand for recreation facilities on Nigerian university campuses is expected to be high because of high level of education income and youth population.

The locations of these universities in major towns and cities place them in advantageous position, since these urban areas are expected to have recreation facilities which the students and the staff can make use of in addition to those provided on the campuses.

For most Nigerian Universities space is no limiting factor because they are located on the outskirts of major towns and cities, except for university of Lagos which is located in a town where space availability is a general problem.

3.10 TYPES OF RECREATION FACILITIES AND SPACE ALLOCATED BY N.U.C. STANDARD GUIDES -

Recreation facilities are considered under communal and social services and facilities in the N.J.C. Standard guides for university planning in Nigeria.

The facilities include the following :-

a) Students' Common Rooms General or Students' Centre:-

Usable area per enrolled student of total population (F.T.E.) is $0.76m^2$, Within this figure are allowances for students' union offices, together with indoor recreation facilities, common rooms and bars.

b) Students Common Rooms (Halls of Residence)

These should house facilities such as television lounge quiet lounge snack bars and games room. For the purposes of this calculation a hall of residence of 500 students has been assumed, for non-residential students allocated to each hall producing a total figure of 667 students per hall. Usable area per F.T.E. student is $0.57m^2$.

c) Large Hall :-

It is assumed that the hall will accomodate up to 1,500 peopple using loose seatings and will also be used for banquets, dances and ceremonial occassions. Usable area is $0.20m^2$/F.T.E.

d) Indoor Sports Hall Complex :-

The provision assumes that the following facilities will be accomodated within the main hall of the sports hall complex - indoor hockey, handball, five, basket ball, badminton, indoor tennis and gymnasium facilities. Usable area/F.T.E. is $0.20m^2$.

e) Outdoor Threatre

It has been assumed that the outdoor theatre will seat 350 persons and will also have facility for showing films. Usable area/F.T.E. is $0.04 m^2$

f) Outdoor Sports Ground Areas

Within the overall figure, it is assumed that the following activities be catered for - football, hockey, cricket, athletics and lawn tennis. Usable area for total population is 19.00 ha.

g) Outdoor pool of full olympic standard (50 x 20) m^2

It is assumed that the pool will be planned adjacent to the sports hall and share the changing room facilities. Usable area (total is 0.5 ha).

h) Others

Including (1) Zoo area is 5.00 ha,

2) Museum - Adhoc,

3) Art gallery - Adhoc

4) Staff common rooms to include recreation facilities and other usable area is 0.35 m^2/member of staff.

3.11 TYPES OF RECREATION FACILITIES ON SOME NIGERIAN UNIVERSITY CAMPUSES

Table 3.10 shows types of recreation facilities on some Nigerian University Campuses.

FINDINGS

a) The Old Universities namely A.B.U., Unife, Unilag., U.I. and U.N.N. have more facilities than the new ones, this is due to the fact that some of the new universities are on temporary sites, hence, the university authorities have not beer able to spend much of these sites, in order to avoid wasteful duplication of facilities. However, the ones hat have moved to permanent sites like universities of Sokoto, Jos and Ilorin are developing according to their master plans.

b) There is generally lack of variety and this limit users' choice.

c) Most of the Recreation Facilities provided are also used for Educational purposes and they are maintained by the departments. These include botanical gardens and Zoo which are often parts of biological sciences, and sport facilities which are often parts of department of physical and health education. As a result of these dual functions, some of these facilities (like Botanical gardens in A.B.U. and B.U.K. and swimming pool in A.B.U.) are not available for recreation.

TABLE 3:10 TYPES OF FACILITIES (1983)

UNIVERSITIES

Indoor Facilities	A.B.U.	UNIFE	UNILAG.	U.I.	U.N.N.	B.U.K.	UNIJOS	UNISOKOTO	UNILORIN	UNIBEN	F.U.T. BAUCHI	N.U.C.
1) Student Centre	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	✓
2) Common Rooms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3) Large Hall	✓	✓	✓	✓	✓	✓	-	-	-	-	-	✓
4) Indoor Sports Hall	✓	✓	-	-	✓	✓	-	-	-	-	-	✓
5) Museum	✓	-	-	-	✓	✓	-	-	-	-	-	✓
6) Senior Staff Club	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓
7) I&J Staff Club	✓	-	-	-	✓	-	-	-	-	-	-	✓
8) Theatre	✓	✓	-	-	-	-	-	-	✓	-	-	✓
Out door Facilities												
1) Outdoor Sports Ground	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2) Swimming pool	✓	✓	✓	✓	✓	-	-	-	-	-	-	✓
3) Art Gallery	✓	✓	✓	✓	✓	-	-	-	-	-	-	✓
4) Zoo	✓	✓	-	✓	✓	-	-	-	-	-	-	✓
5) Gardens	✓	✓	✓	✓	✓	-	-	✓	-	-	-	✓

Sources: Field work and N.U.C.

d) The Recreation Facilities for Intermediate and Junior Staff do not receive enough attention in Most Campuses, not even in the Master plans of the new universities. There is an Intermediate and Junior Staff Club in A.B.U. Main Campus but it is not properly taken care of. This finding could be related to the fact that most I&J Staff are expected to live off campus.

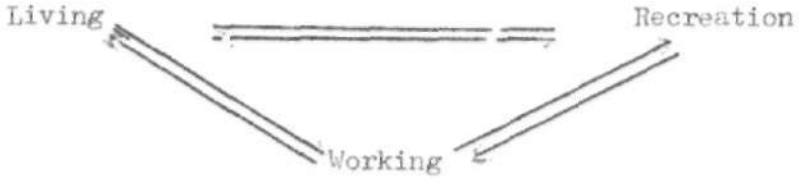
e) In the Campuses Children's recreation is taken care of in Staff Schools, Nursery School and Staff Clubs. - Apart from these places, the staff quarters lack well-equipped playgrounds for children.

f) Students' Residential Areas lack adequate adequate Recreation Facilities and Organized Open Spaces, except in some cases where facilities such as badminton and lawn tennis courts are provided, the open spaces. The common rooms are provided with television set, table tennis and buffet. Unfortunately these are not the only recreation facilities that could be provided in the halls of residence many more could be provided to give variety, to allow choice and take care of large population in the halls.

g) Recreation facilities within the academic areas and central cores are lacking, recreation facilities in these areas are mainly in form of museum, art-gallery, sport facilities and others that are used mainly for educational purposes. While the open spaces are not organized for example the love garden in Ahmadu Bello University Main Campus has been abandoned because the convocation square was expanded and part of the garden taken over. It is an area that could be organized for both staff and students.

h) Most Campuses have physical features like rockoutcrops and water bodies within their sites - these resources if properly treated provide beautiful scenery that is required for recreation activities like picnicking, camping and sight-seeing. Furthermore, most campuses are devoid of trees, which provide shade that is required for activities like strolling, jogging and ridding.

3.20 LOCATION OF RECREATION FACILITIES IN RELATION TO OTHER CAMPUS ELEMENTS



The figure above shows the interrelationships between places of work, living and recreation. In university planning these interrelationships should be considered in order to have an effective and efficient system that allows for optimal academic performance and social interaction.

In most cases recreation facilities are located in such a way that unnecessary walking distances are not imposed on the pe pedestrians. Table 3.11 shows the location of recreation facilities on some campuses in relation to other campus elements.

Table 3:11 LOCATION OR RECREATION FACILITIES ON SOME CAMPUSES

UNIVERSITIES/LOCATION

Indoor facilities	A.B.U.				UNIFE				U.I.				UNILORIN				UNIJOS				U.S.Y.				UNISOKOTO			
	C.C.	A.A.	T.R.	S.R.	C.C.	A.A.	T.R.	S.R.	C.C.	A.A.	T.R.	S.R.	C.C.	A.A.	T.R.	S.R.	C.C.	A.A.	T.R.	S.R.	C.C.	A.A.	T.R.	S.R.	C.C.	A.A.	T.R.	S.R.
1. Students' Centre	✓	–	–	–	✓	✓	–	–	–	✓	–	–	–	✓	–	–	–	–	✓	–	–	✓	–	–	–	–	✓	–
2. Students' Common Rooms	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	✓	–
3. Large Hall	✓	–	–	–	–	✓	–	–	–	✓	–	–	–	–	✓	–	–	–	–	–	–	✓	–	–	–	–	–	–
4. Indoor Sports Hall	–	–	–	✓	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–		✓	–	–	–	–	–	–
5. Museum	–	✓	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	✓	–	–	–	–	–	–
6. Senior Staff Club	–	✓	–	–	–		–	–	–	✓	–	–	–	–	–	✓	–	–	–	✓		–	–	✓	–	–	–	–
7. I&J Staff Club		–	–	✓	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8. Theatre	–	✓	–	–	–	✓	–	–	–	–	–	–	–	✓	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Outdoor facilities																												
1. Outdoor Sports Ground	–	✓	✓	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	–	✓	–
2. Swimming Pool	–	–	✓	–	–	✓	–	–	–	✓	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
3. Art Gallery	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
4. Zoo	–	✓	–	–	–		–	–	–	✓	–	–	–	–	–	–	–	✓	–	–	–	–	–	–	–	–	–	–
5. Garden	✓	✓	–	–	–	✓	–	–	–	✓	–	–	–	✓	–	–	–	–	–	–	–	✓	–	–	–	✓	–	–

Source:- field work

Legend

C.C. = Central Core
A.A. = Academic area
T.R. = Students' Resicential area
S.R. = Staff Residential area
✓ = Location of the facility
– = facility not in existence.

FINDINGS

a) Facilities for Staff recreation are located in Staff quarters or in academic areas. For example the senior staff club in University of Jos is located within the staff quarters, while the Senior Staff Club in Ahmadu Bello University Main Campus is located within the academic area. This finding may be related to the fact that most staff members are expected to be mobile, therefore location should not impose a constraint on use of facilities.

b) Facilities for Students' recreation are located in academic areas or within Students' residential areas. The academic areas are often close to the Students' hostels, therefore, students' recreatio facilities can be easily reached by the students whether located in academic or students' residential areas. Examples include the students' centre in University of Jos which is located within students' residential areas while that of A.B.U. Main Campus is located within the academic area, Students' Common rooms are generally parts and parcel of the Students' hostels.

c) Central recreation facilities are located in Central core, academic area or near students' residential area, these facilities include outdoor sports ground, swimming pools and assembly halls which are commonly used by both staff and students. The major factor governing such location is accessibility to different users especially the students who are mostly pedestrians, since most staff members are

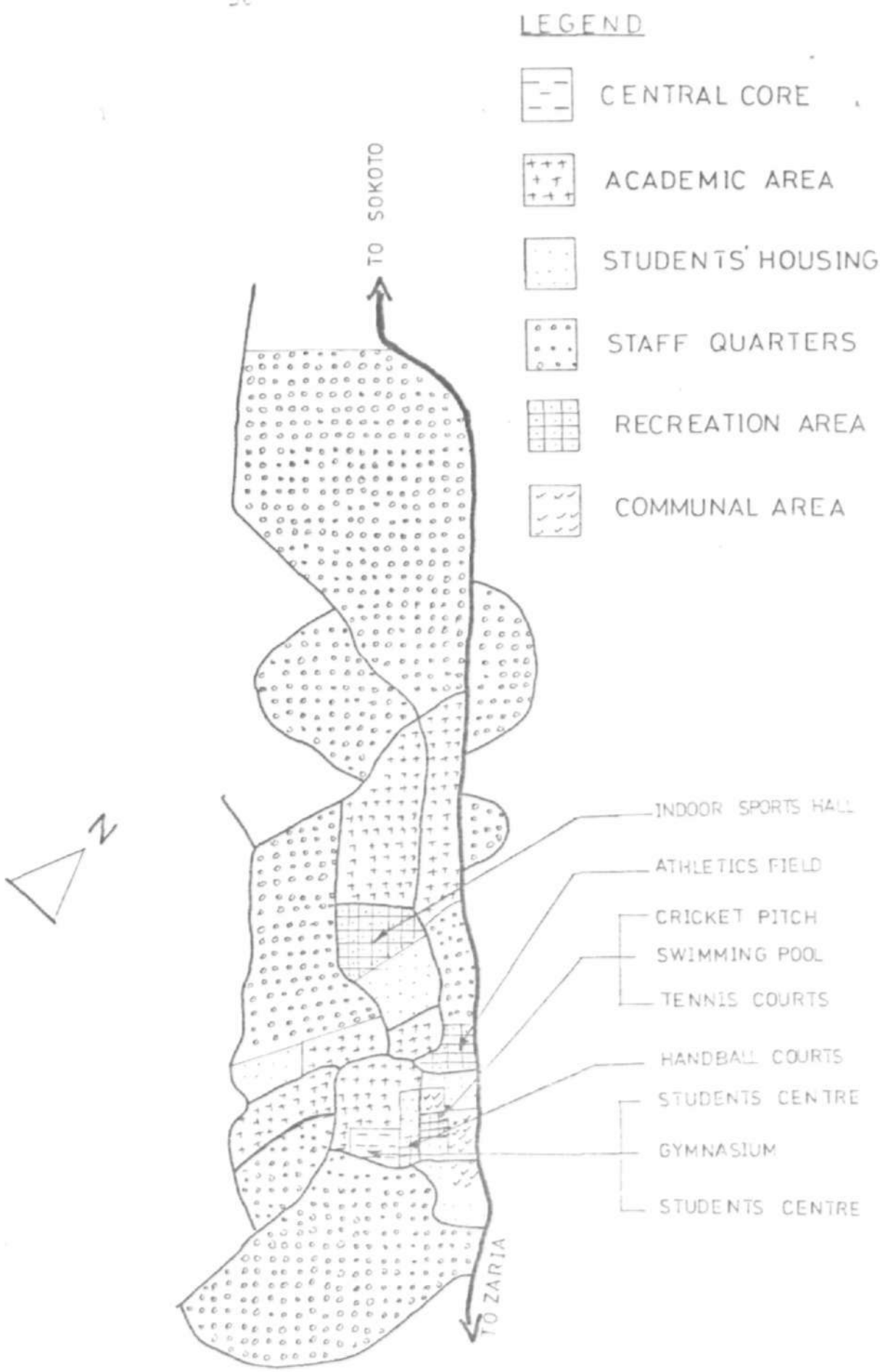


FIG. 3.10 SKETCH LAYOUT PLAN OF A.B.U.

(SOURCE: A.B.U MASTER PLAN)

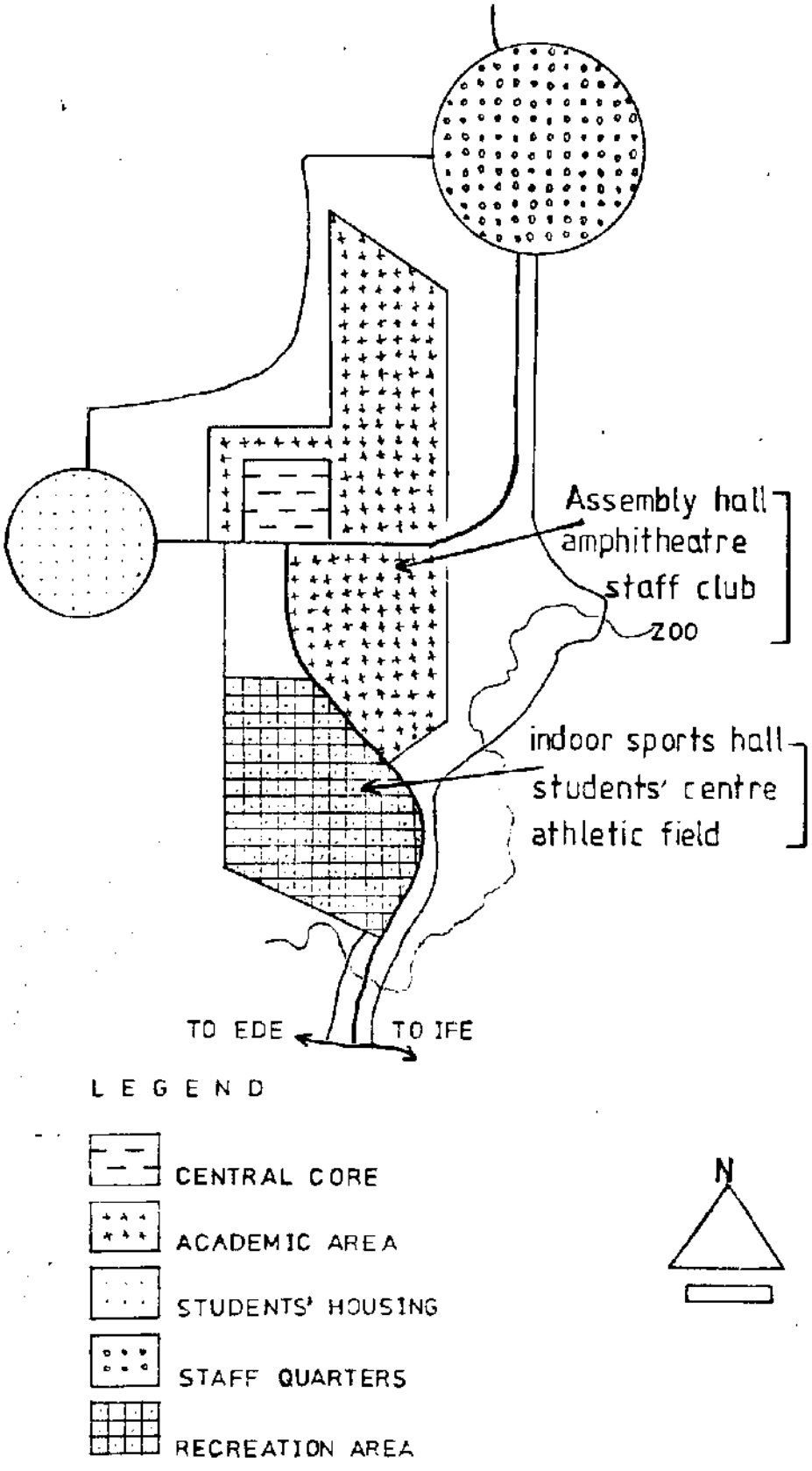


FIGURE 3.11: SKETCH LAYOUT PLAN OF UNIVERSITY OF IFE
source: unife masterplan (1980)

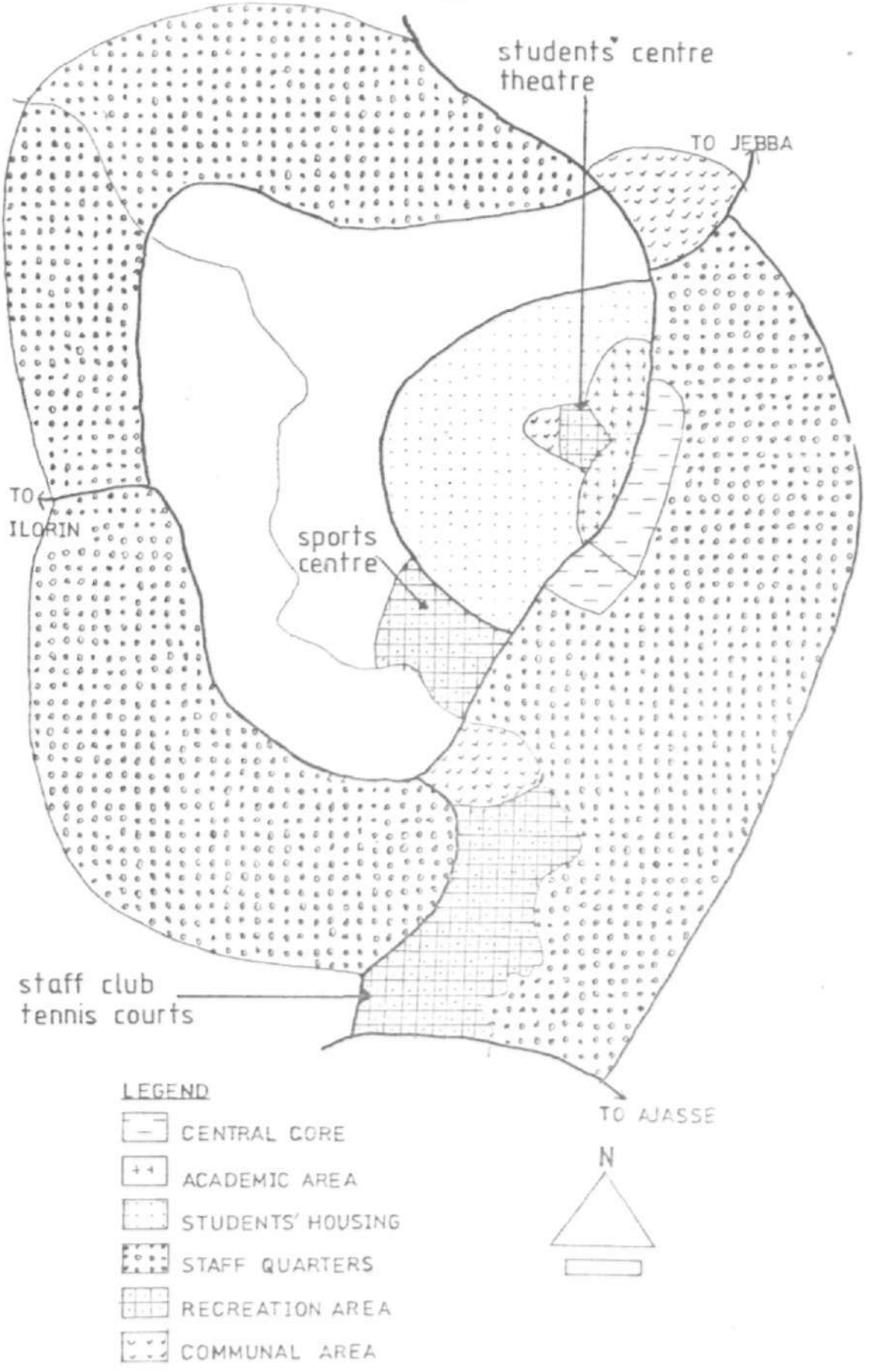


FIGURE 3.12 : SKETCH LAYOUTPLAN OF UNIVERSITY OF ILORIN
source : unilorin masterplan (1976).

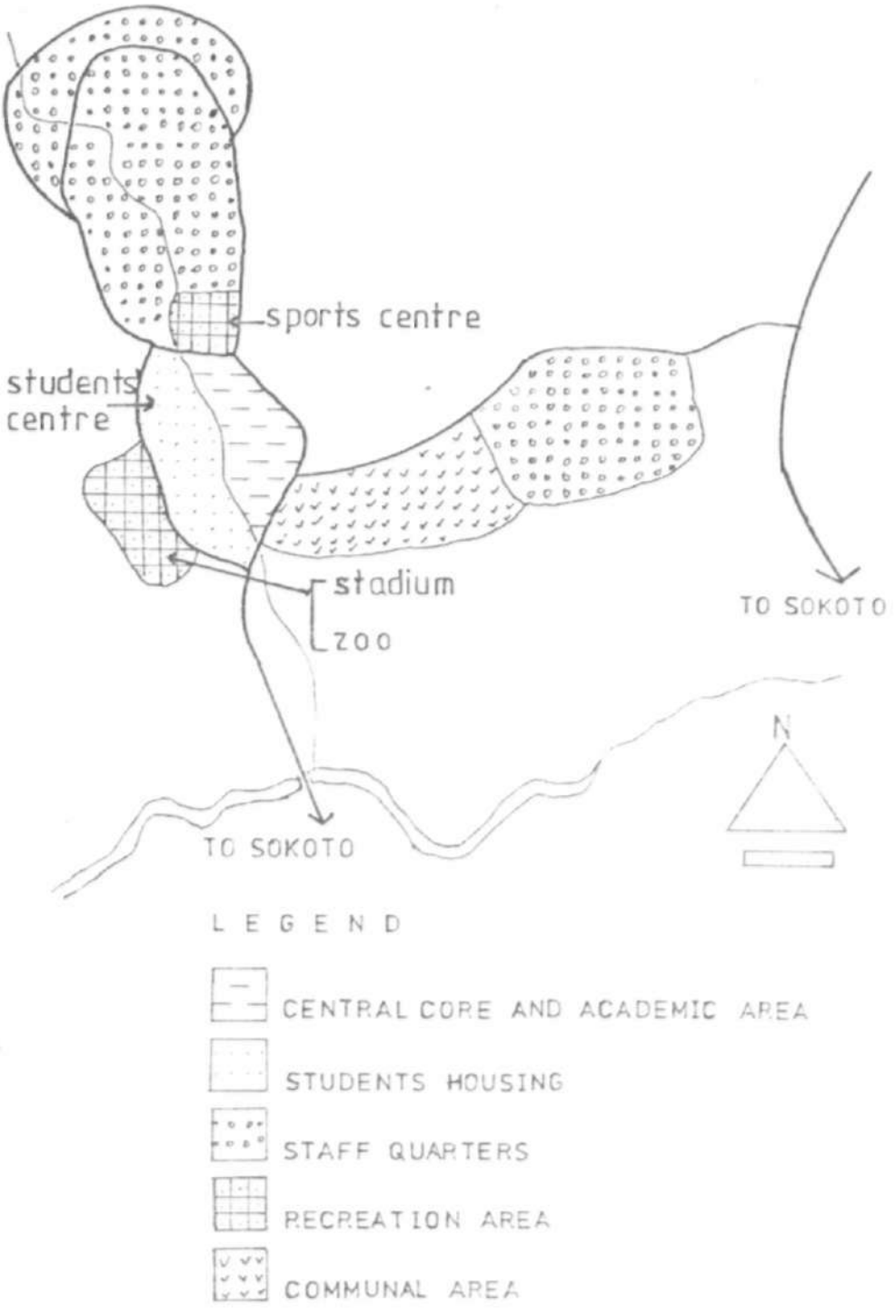


FIGURE 3.13: SKETCH LAYOUT PLAN OF UNIVERSITY OF SOKOTO

source: university of sokoto masterplan (1976)

Table 3:12:- ESTIMATED POPULATION FOR FOUR UNIVERSITIES 1983/84

POPULATION	UNIVERSITIES			
	A.B.U.	IFE	ILORIN	JOS
Students	9,200	10,700	5,800	6,000
Senior Staff	2,100	1,800	1,000	1,000
I&J Staff	6,500	7,200	3,900	4,000
TOTAL	17,800	19,700	10,700	11,000

Sources:- 1) University Authority (A.B.U.

2) Bwilwa 1982

Projections are based on N.U.C Students: Staff ratios.

Table 3.13 shows recreation areas in four Nigerian Universities as compared with N.U.C. standards.

FINDINGS

Table 3.13 revealed the fact that for most facilities provided on the university campuses, the recreation areas fall below N.U.C. standards. Figure 3.14, 3.15, 3.16 and 3.17 are graphic presentations of these short falls and surpluses for A.B.U. (Main Campus) universities of Ife, Ilorin and Jos respectively. However, the reality of these short falls depend on the users' satisfaction or dissatisfaction with these facilities.

Table 3.13 - RECREATION AREAS IN FOUR NIGERIAN UNIVERSITIES (1983)
AS COMPARED WITH N.U.C. STANDARDS(IN HECTARE)

Indoor facilities	... B. U.			UNILE			UNILORIN			UNIJOS		
	N.U.C.	EXISTING	DIFFERENCE	N.U.C.	EXISTING	DIFFERENCE	N.U.C.	EXISTING	DIFFERENCE	N.U.C.	EXISTING	DIFFERENCE
1) Students' Centre	0.7	0.21	-0.49	0.8	0.09	-0.71	0.37	-	-0.37	0.4	0.35	-0.05
2) Students' Common Rooms	0.52	0.33	-0.19	0.6	0.58	-0.02	0.28	0.06	-0.22	0.30	-	-0.30
3) Large Hall	0.18	0.10	-0.08	0.20	0.17	-0.03	0.01	-	-0.01	0.11	-	-0.16
4) Indoor Sports Hall	0.18	0.45	+0.27	0.20	0.14	-0.06	0.01	-	-0.01	0.11	-	-0.16
5) Senior Staff Club	0.07	1.15	+1.08	0.06	0.14	+0.08	0.03	0.05	+0.03	0.03	0.3	+0.27
6) I&J Staff Club	0.23	0.05	-0.17	0.21	-	-0.21	0.105	-	-0.105	0.13	-	-0.13
7) Theatre	0.08	0.10	+0.02	0.09	0.12	+0.03	0.04	0.03	-0.01	0.04	-	-0.04
Outdoor facilities												
8) Outdoor Sports Ground	19.00	4.00	-15.00	19.00	4.00	-15.00	19.00	-	-19.00	19.00	0.20	-18.80
9) Swimming pool	0.50	0.3	- 0.20	0.50	-	-0.50	0.50	-	-0.50	0.50	-	-0.50
10) Art Gallery	Adhoc	-	-	Adhoc	-	-	Adhoc	-	-	Adhoc	-	-
11) Zoo	5.00	-	-	5.00	-	-	5.00	-	-5.00	5.00	-	-5.00
12) Garden	5.00	-	-	5.00	-	-	5.00	-	-5.00	5.00	-	-5.00

Sources:- (1) Field Work
(2) University Master plan Reports.

Legend

-ve = Shortfall

+ve = Surplus.

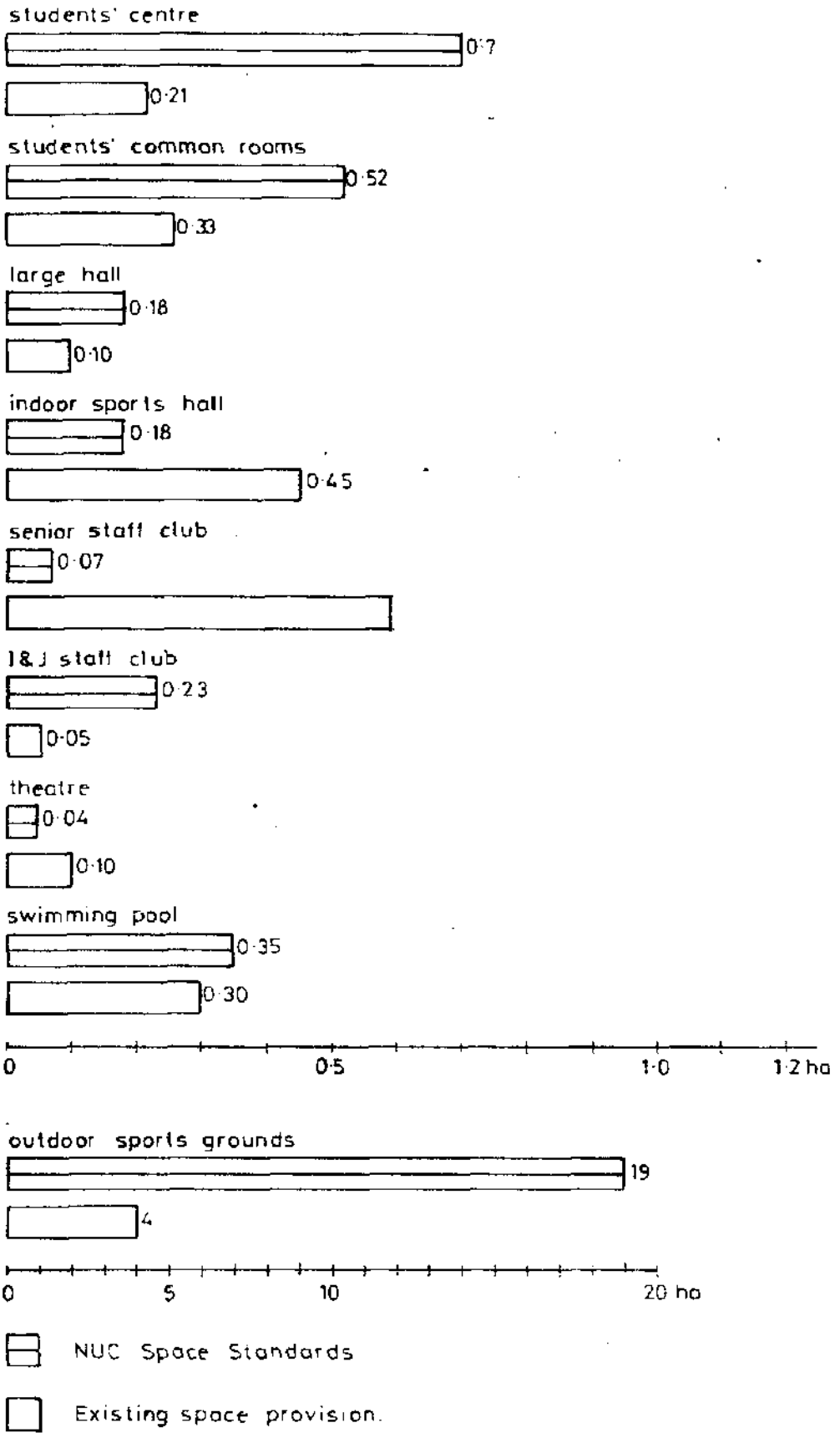


FIGURE 3.14 : The Recreation Areas on A.B.U. (Main Campus)- N.U.C. Standards and Existing Provision.

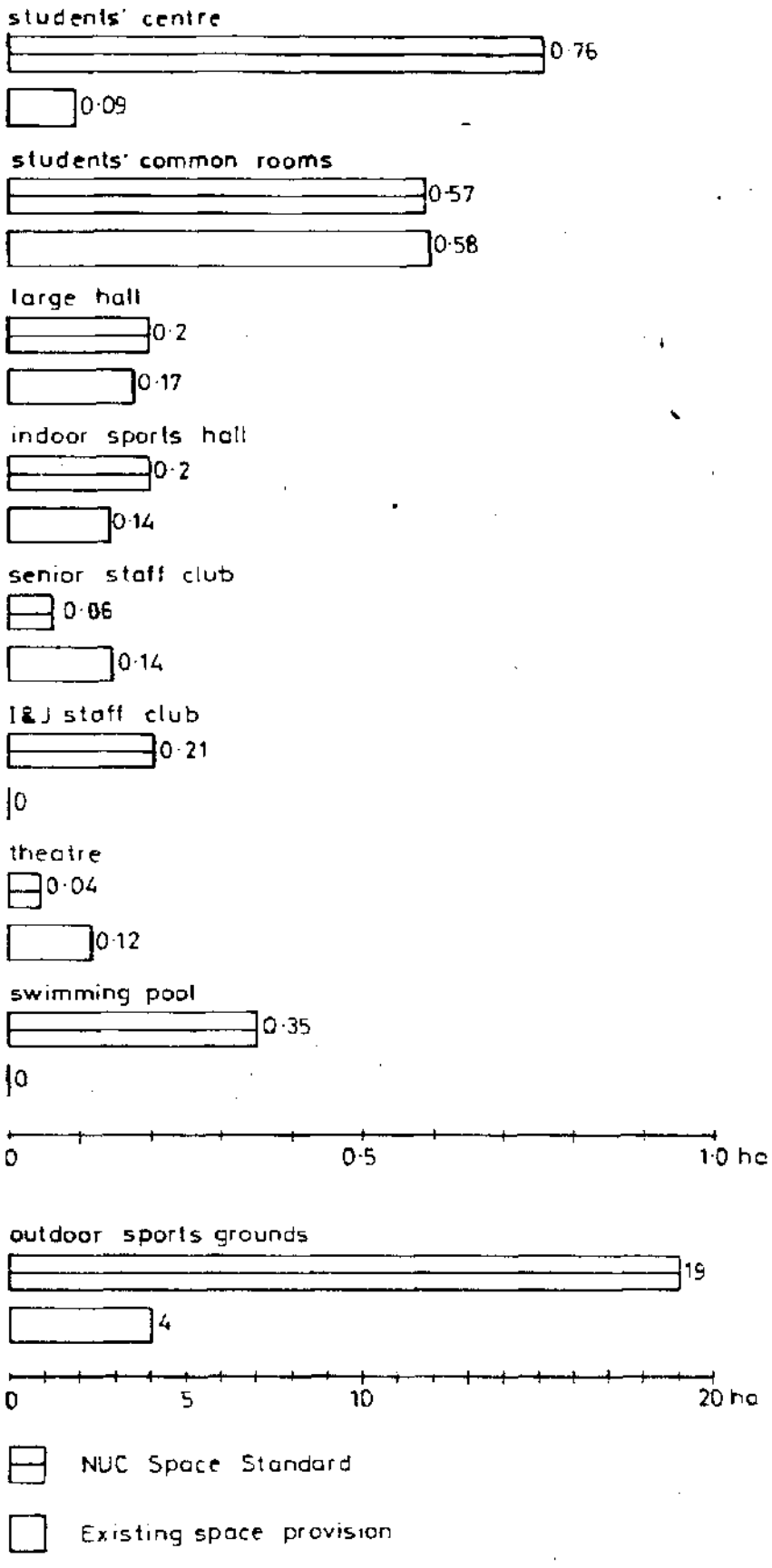


FIGURE 3.15 : The Recreation Areas on University of Ife - N.U.C. Standards and Existing Provision.

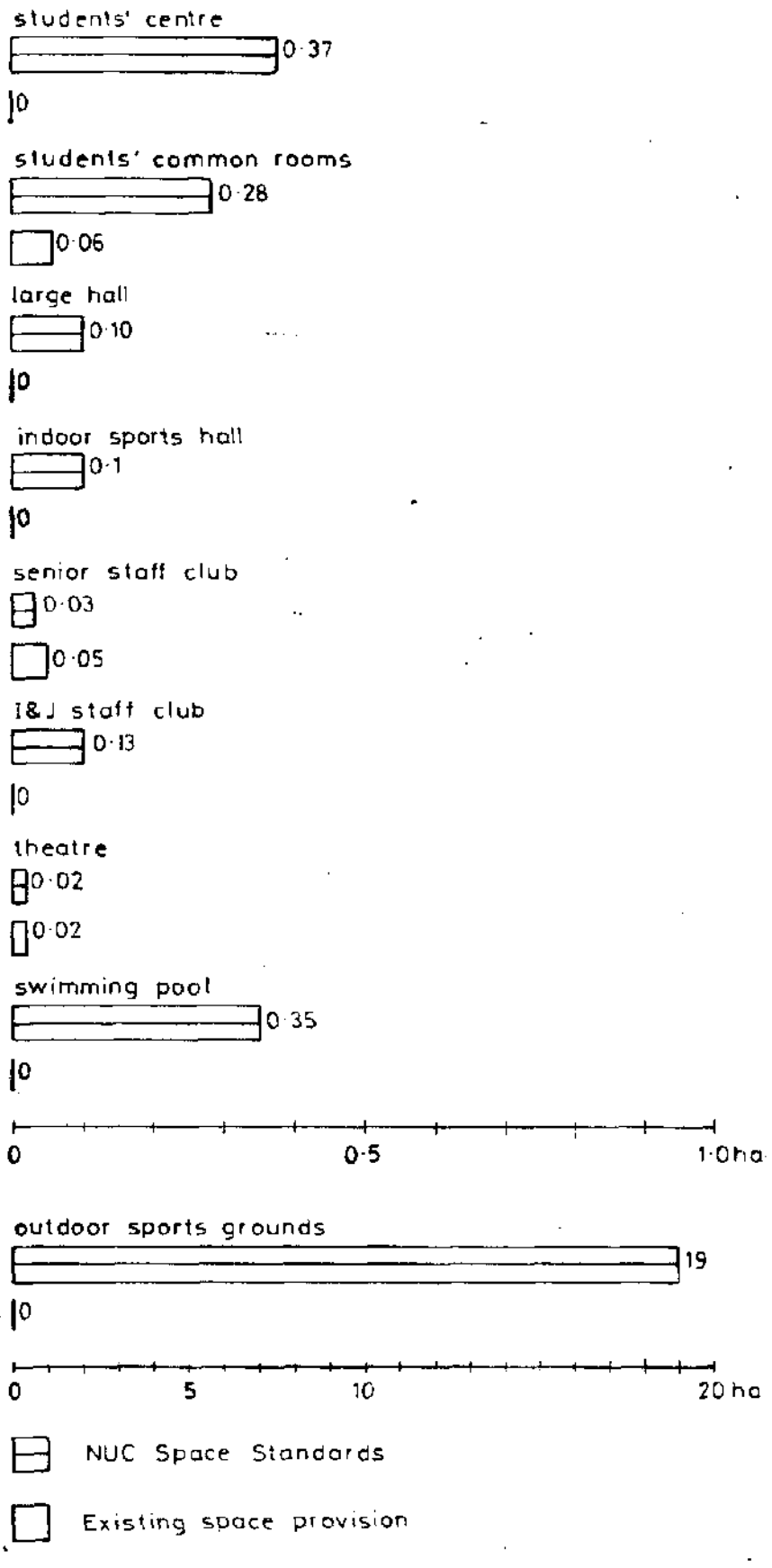


FIGURE 3.16 : The Recreation Areas on University of Ilorin-N.U.C. Space Standards and Existing Provision.

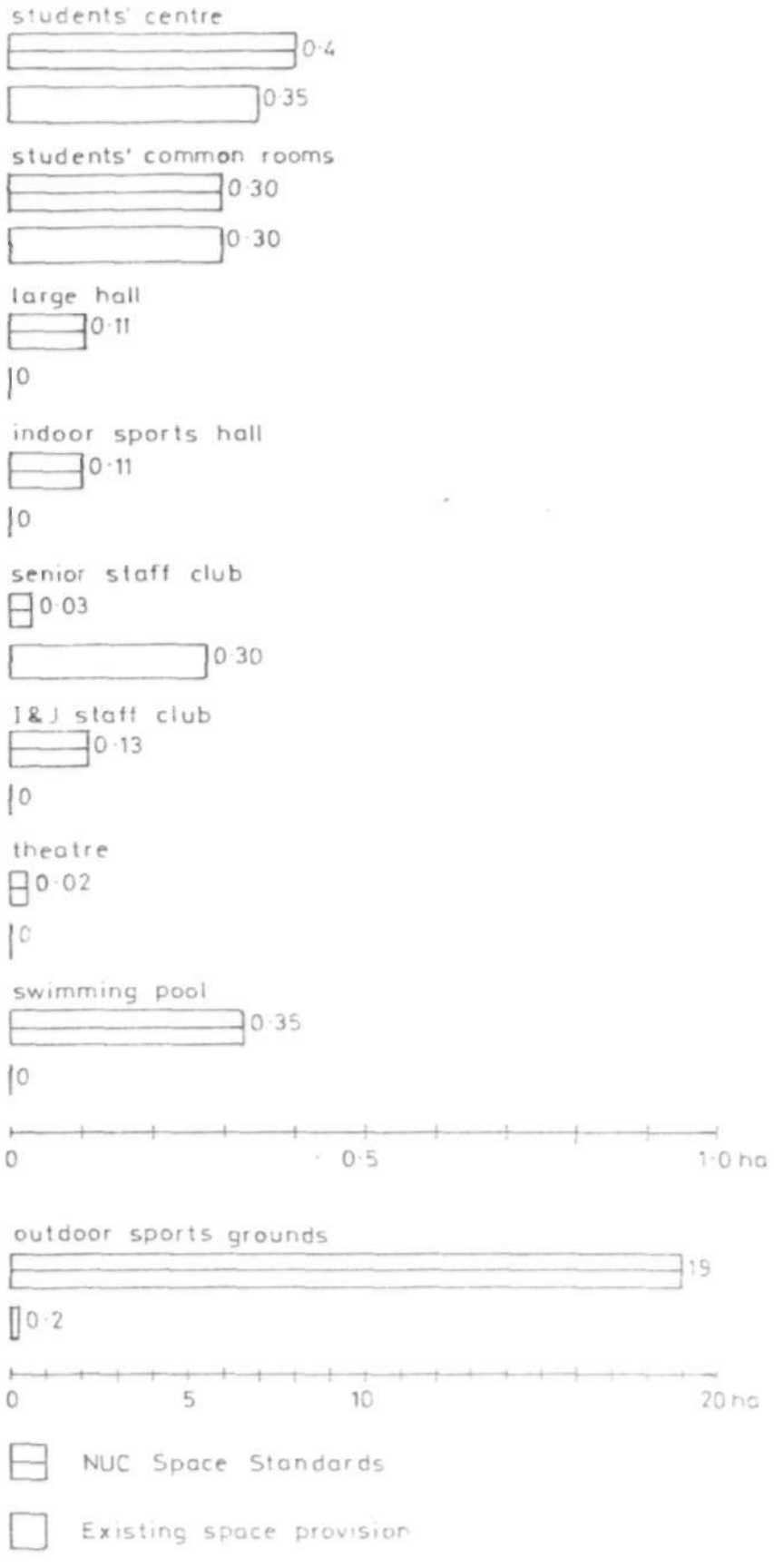


FIGURE 3.17 : The Recreation Areas on University of Jos - N.U.C. Space Standards and Existing Provision.

3.40 DATA COLLECTION AND ANALYSIS -

Questionaires were used in collecting informations needed on types of recreation facilities required by the users. Two sets of questionaires were administered in Eight Nigerian universities namely A.B.U. (Main Campus), University of Ife, University of Jos, University of Sokoto, University of Ilorin, University of Benin, Bayero University Kano and Federal University of Technology Bauchi, the objectives of the first survey were to determine the socio-economic characteristics of the campus populations and their planning implications, to determine users' satisfaction with the existing facilities and to identify the types of facilities required for the purpose of making general proposal. The second set was administered in A.B.U. (Main Campus), University of Ife, University of Ilorin and University of Jos. The findings of the first set of questionaires guided the design and administration of the second set of questionaires. 1,800 questionaires were administered in these surveys, 800 copies for the first set and 1,000 copies for the second set.

The computer was used to analyse the collected informations.

3.41 USERS PREFERENCES FOR RECREATION FACILITIES -

Table 3.14 shows preferences for different recreation activities for eight Nigerian Universities. Figures 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, and 3.25 are graphic

presentations of percentages of participants in various activities by different universities. Most people interviewed wanted all the listed facilities. In the table and figures participation in picnicking, Swimming and Camping fall below expectation. Low participation in swimming may be related to low level of Security, which has made some students to loose their lifes helplessly in the Swimming pools, and also lack of proper coaching system discourages the intended users. Low participation in picnicking and camping may be associated with lack of supply, it is assumed that demand can be generated by supply.

Table 3.14 :- PREFERENCES FOR DIFFERENT RECREATION ACTIVITIES BY VARIOUS UNIVERSITIES

ACTIVITIES	UNIVERSITIES/% OF PARTICIPANTS							
	A.B.U.	IFE	ILORIN	JOS	BENIN	B.U.K.	SOKOTO	F.U.T. BAUCHI
1) STROLLING	12	11	19	11	11	10	8	12
2) DANCING	5	9	9	9	7	6	8	9
3) INDOOR GAMES	5	7	6	7	4	10	9	12
4) PICNICKING	7	7	10	10	8	5	7	6
5) SIGHT-SEEING	7	9	12	12	14	13	12	14
6) SPORTS	18	14	9	10	16	15	17	17
7) FILM SHOWS/DRAMA	12	10	6	9	8	12	10	6
8) VISITING CLUB HOUSES	14	7	6	9	11	7	4	9
9) VISITING PARKS	17	13	18	14	18	14	15	14
10) SWIMMING	1	7	3	3	2	1	5	1
11) CAMPING	2	6	2	6	1	1	5	0
TOTAL	100	100	100	100	100	100	100	100

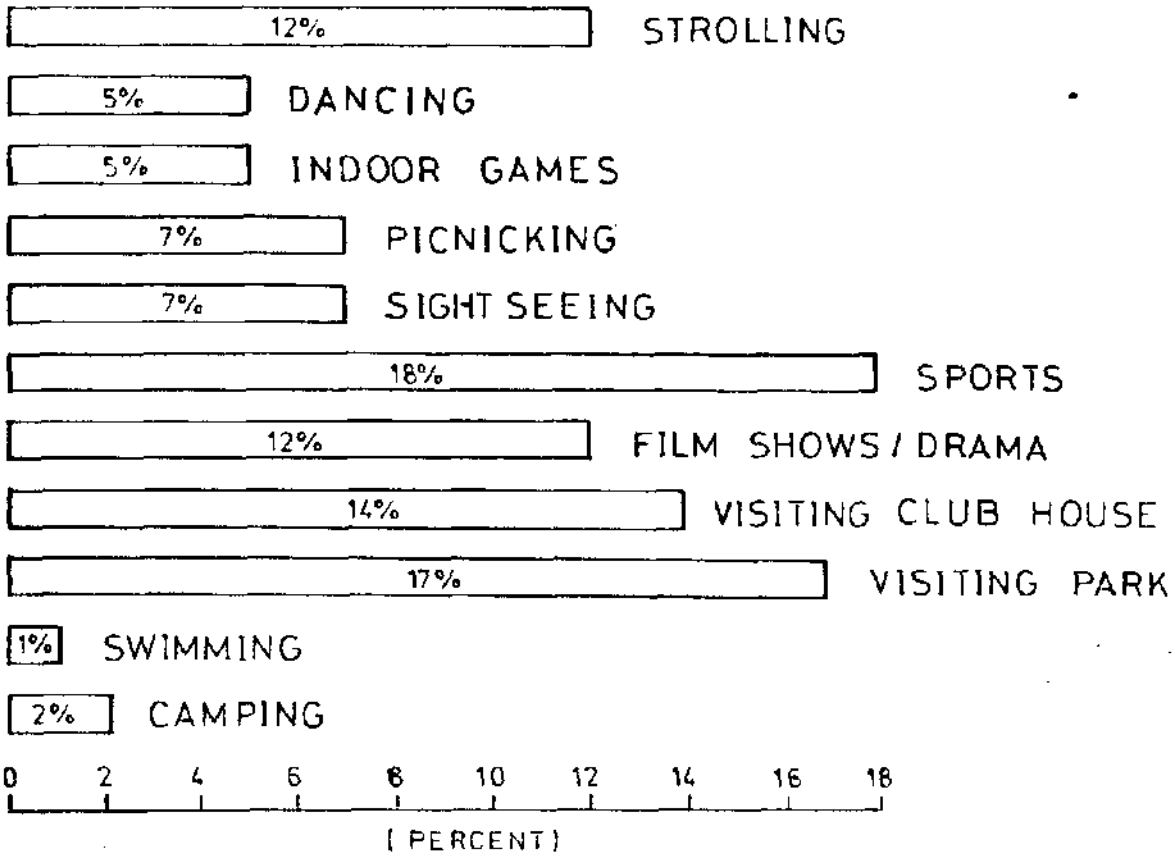


FIG. 3.18 PARTCIPATION IN PERCENTAGES
A.B.U. MAIN CAMPUS

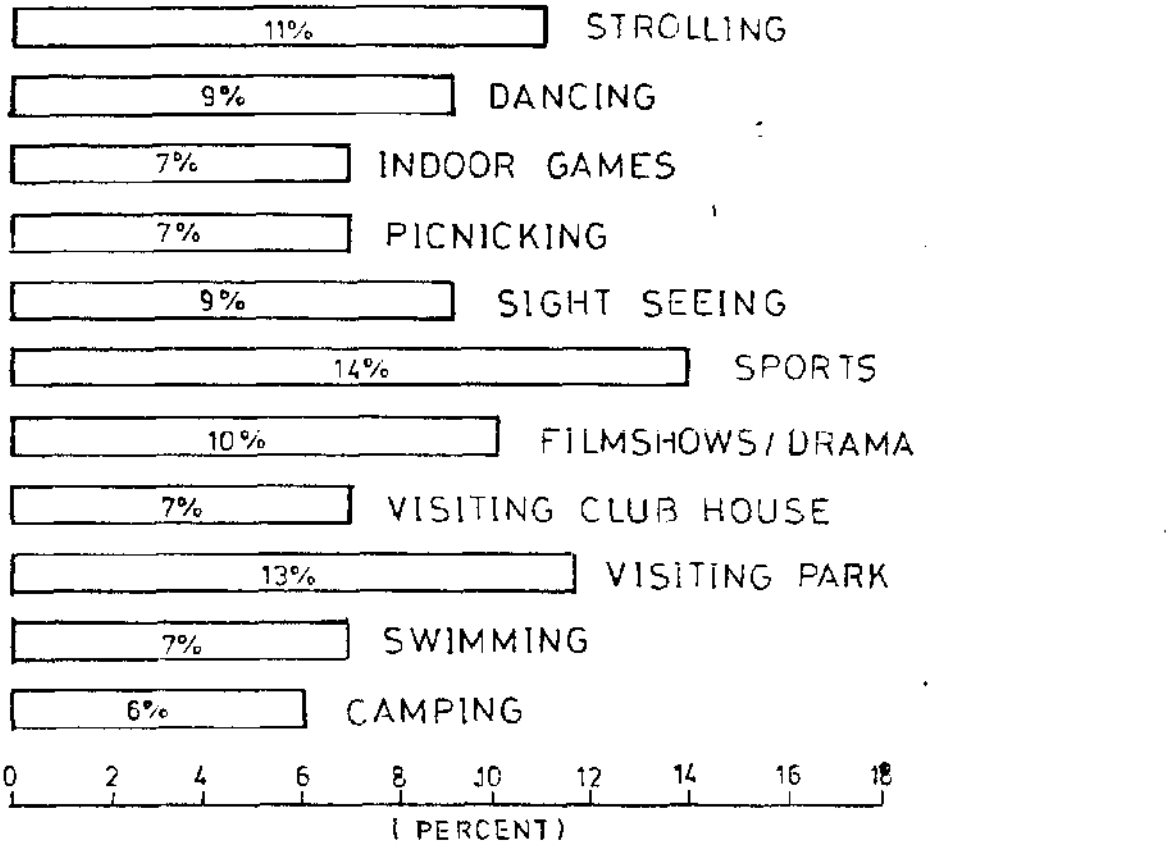


FIG. 3.19 PARTICIPATION IN PERCENTAGES
UNIVERSITY OF IFE

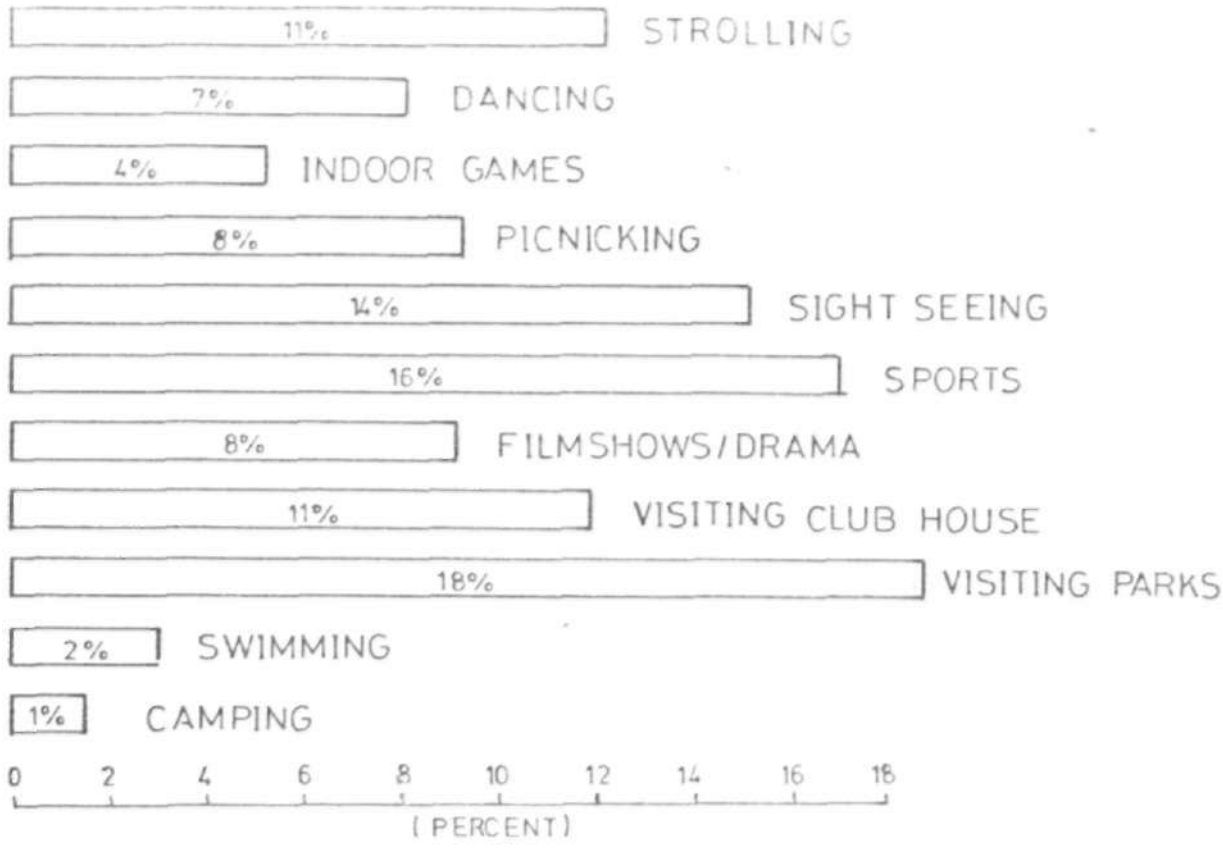


FIG. 3.20 PARTICIPATION IN PERCENTAGES UNIVERSITY OF BENIN

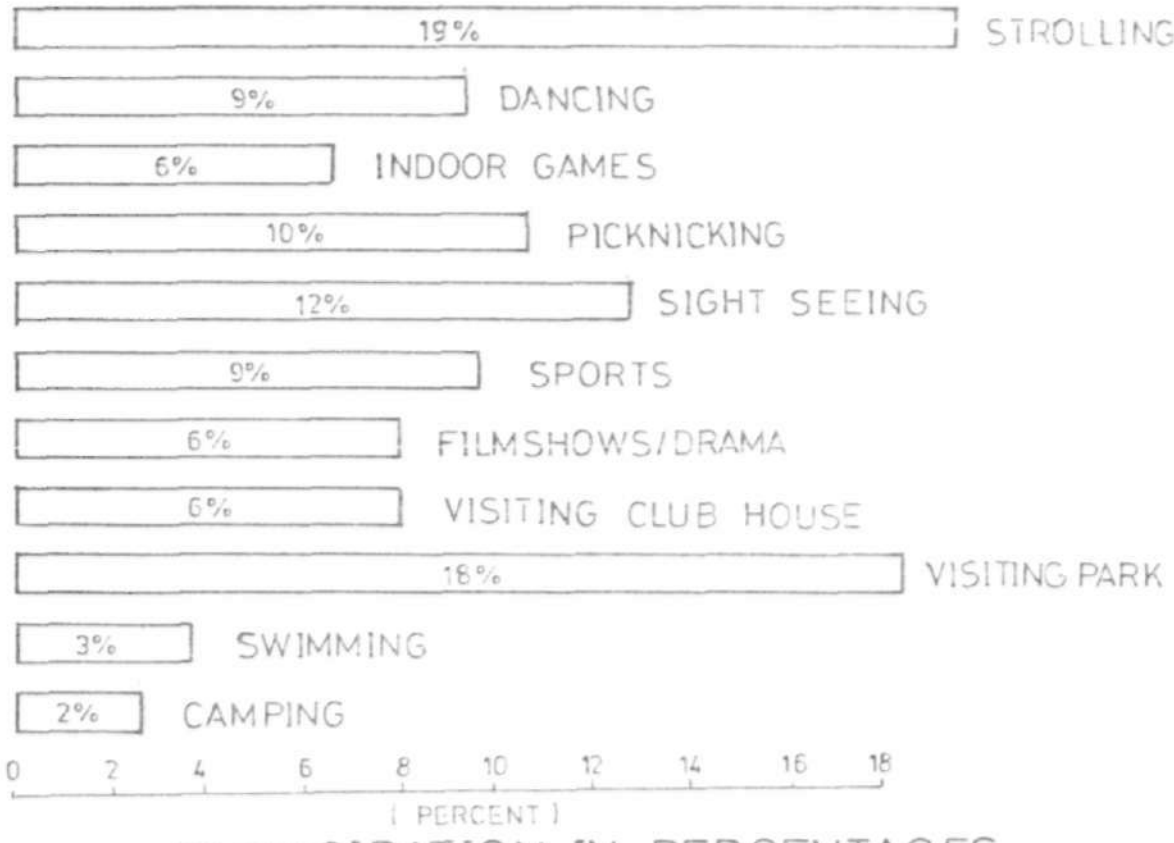


FIG 3.21 PARTICIPATION IN PERCENTAGES UNIVERSITY OF ILORIN

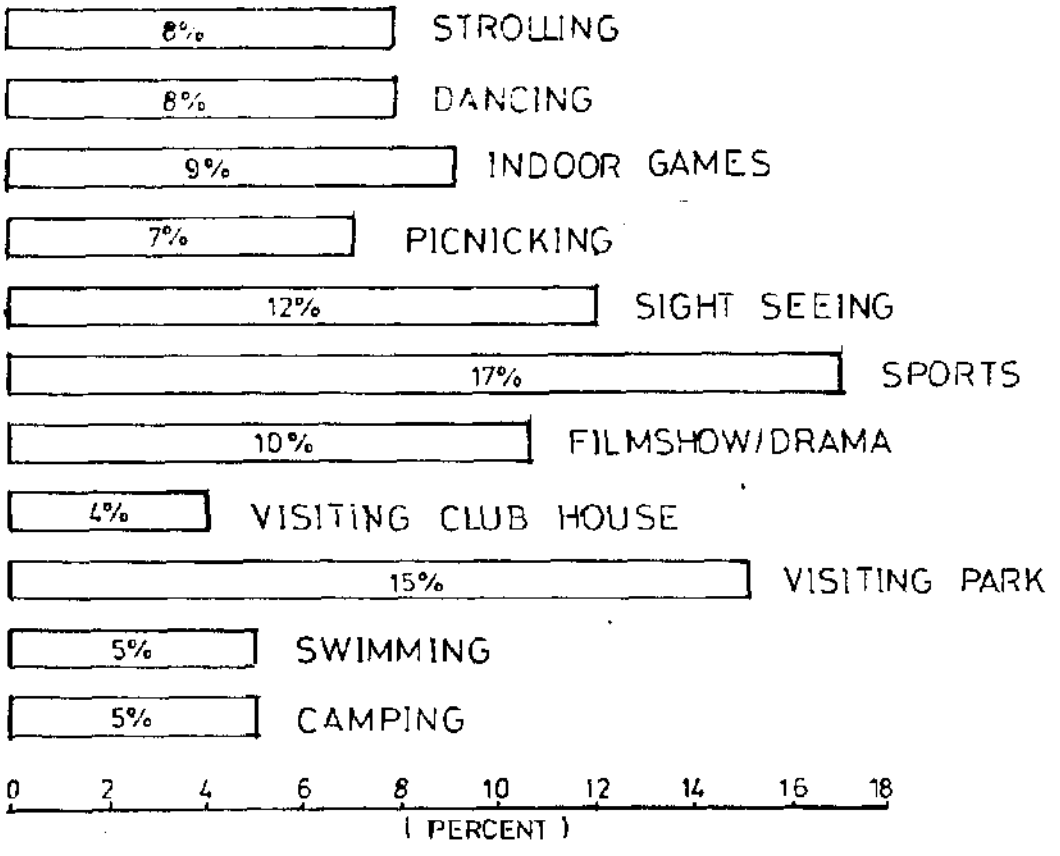


FIG. 3.22 PARTICIPATION IN PERCENTAGES UNIVERSITY OF SOKOTO

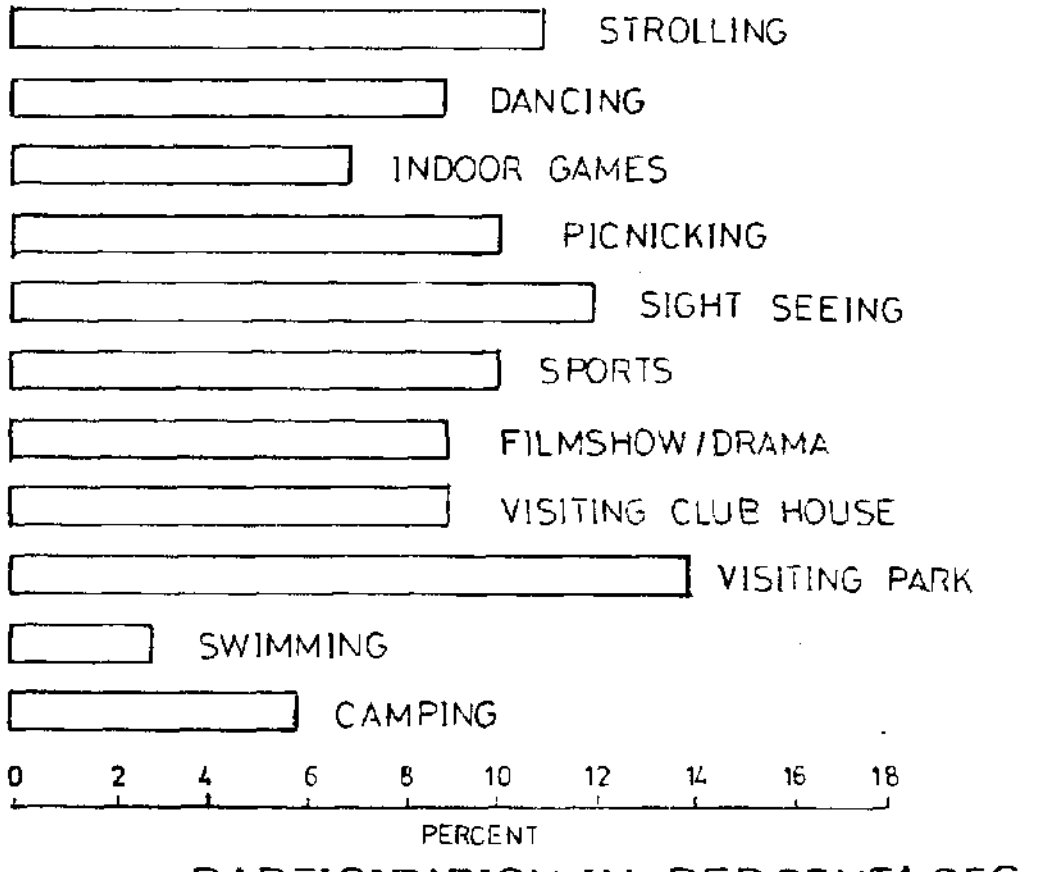


FIG. 3.23 PARTICIPATION IN PERCENTAGES UNIVERSITY OF JOS



FIG. 3.24 PARTICIPATION IN PERCENTAGES FED. UNIVERSITY OF TECH. BAUCHI

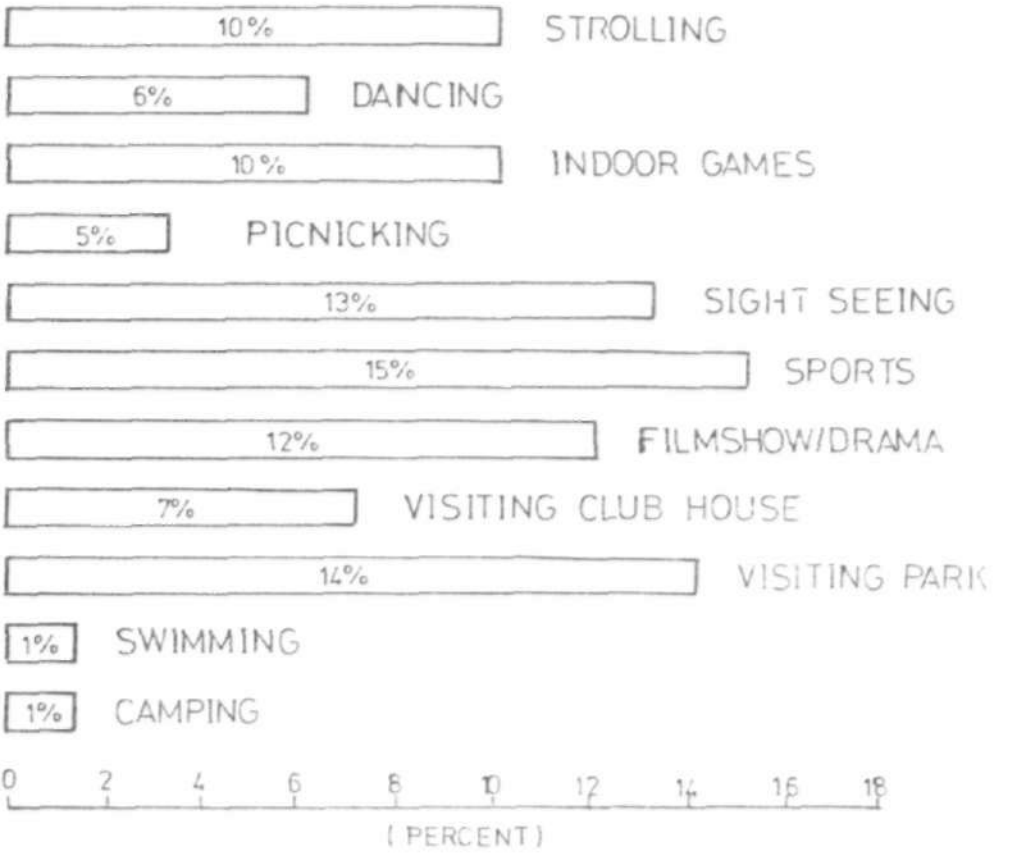


FIG. 3.25 PARTICIPATION IN PERCENTAGES BAYERO UNIVERSITY, KANO

3.42. EFFECTS OF DEMOGRAPHIC FACTORS ON PARTICIPATION IN RECREATIONAL ACTIVITIES

Table 3.15 illustrates breakdown of participants in different activities by age group.

Activities

Age - Group	Strolling	Dancing	Indoor Games	Picnicking	Sight-Seeing	Sports	Filmshows/Drama	Visiting Club House	Visiting Parks	Swimming	Camping	
15 - 20	14	23	15	19	12	18	17	7	11	13	20	
21 - 25	47	53	47	45	64	5	53	43	47	45	40	
26 - 30	16	16	23	15	20	19	14	27	17	14	40	
31 - 35	15	7	10	17	13	9	12	13	18	13	-	
36+	8	1	5	4	10	4	9	10	7	15	-	
Totals	100	100	100	100	100	100	100	100	100	100	100	

Table 3.15 revealed low level of participation especially in sports and dancing by people above the age of 36 years. This is due to the physical effects of ageing and the consequent disinclination with advancing years to participate in more vigorous pursuits.

Table 3.16 shows the breakdown of participants in different activities, by marital status.

Table 3.16:- MARITAL STATUS/PREFERENCES IN ACTIVITIES

	Activities Participation in Percentages										
Marital Status	Strolling	Dancing	Indoor Games	Picnicking	Sight-Seeing	Sports	Filmshows/Drama	Visiting Club House	Visiting Parks	Swimming	Camping
Single	66	82	73	73	64	67	72	66	55	65	83
Married	34	18	27	27	36	33	28	34	45	35	17
Total	100	100	100	100	100	100	100	100	100	100	100

Table 3.16 revealed general low level of participation by married people especially in activities like camping and dancing this this may be related to little time available to such people, because of time required for house keeping and child care.

Though participation by married people is generally low, this statement is even more true for married females as it is revealed by table 3.17.

Table 3.17 MARRIED/SEX/PREFERENCES FOR ACTIVITIES

Sex	Activities/Participation in Percentages										
	Strolling	Dancing	Indoor Games	Picnicking	Sight-Seeing	Sports	Filmshows/Drama	Visiting Club House	Visiting Parks	Swimming	Camping
Males	68	72	71	70	56	84	58	58	50	78	94
Females	32	28	29	28	44	16	42	42	50	28	6
Totals	100	100	100	100	100	100	100	100	100	100	100

Table 3.17 revealed low level of participation in sports, dancing, camping and swimming by married women, this is related to the fact that little time is available to such people, hence they participate more in activities like sight-seeing, filmshows/drama and strolling that require less time.

3.43 EFFECTS OF SOCIO-ECONOMIC FACTORS ON PARTICIPATION IN RECREATION ACTIVITIES

A university is an educational institution therefore level of awareness and level of participation in recreation activities are expected to be high. However, other socio-economic factors.- play important role in participation.

Table 3.18 shows preferences for recreation activities based on occupation.

Table 3.18 :- OCCUPATION/PARTICIPATION

	Activities/Participation in %										
Occupation	Strolling	Dancing	Indoor Games	Picnicking	Sight-Seeing	Sports	Filmshows/Drama	Visiting Club House	Visiting Parks	Swimming	Camping
Senior Staff	23	24	12	23	12	24	20	32	7	11	-
I&J Staff	6	5	14	4	-	9	4	7	-	2	-
Undergraduates	56	60	68	61	78	58	66	51	85	82	
Post Graduates	5	11	6	12	10	9	10	10	9	5	-
Totals	100	100	100	100	100	100	100	100	100	100	100

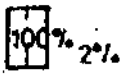
Table 3.18 revealed low levels of participation among the staff and postgraduate students, for the senior staff and postgraduate students low level of participation can be related to lack of time, while for



NO TIME



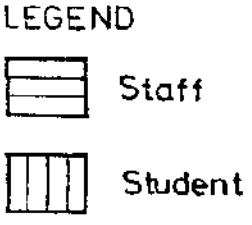
FACILITIES NOT NEAR PLACE OF RESIDENCE



FACILITIES NOT NEAR PLACE OF WORK



FACILITIES NOT PROVIDED





NO INTEREST



NO MONEY

FIG. 3.26: NON PARTICIPATION IN RECREATION ACTIVITIES

Intermediate and Junior Staff money may be the major constraint.

Figure 3.26 illustrates reasons for non-participation. 26% of the people gave no time as their answers 33% no money, 11% facilities not near place of residence, 2% facilities not near place of work, 12% no interest, and 16% facilities not provided. From this figure it is apparent that time and money are major constraints on recreation. The survey also revealed that 26% of the users are mobile, while the rest 74% are not, however, this does not have much effect on use of facilities, this is due to the fact that facilities required are provided within the campuses or users can utilise public transport for facilities located away from the campuses.

3.44 CONCLUSIONS from THE SURVEYS

The surveys revealed that demographic and socio-economic factors affect participation and preferences for recreation activities. Therefore, efforts will be made to ensure that the design and recommendations incorporates the interests of all groups.

Time and money have been found to be major constraints on participation, hence, the need to provide facilities that require less time for maximum enjoyment and also

weekend facilities like picnicking and camping. There is also a need to use cheap and durable equipments so as to avoid over commercialization of the facilities because of the little fund available to both users and suppliers.

Although, mobility is no limiting factor on participation in recreational activities, there is a need to provide internal bus service within the campuses so as to reduce travel time of most users who are pedestrians.

3.45 EVALUATION OF N.U.C. SPACE STANDARDS

The first survey revealed dissatisfaction with existing facilities among users. 15% of the people think existing facilities are adequate, 75% considered them inadequate, while the rest 10% gave no answer. This finding calls for an evaluation of the N.U.C. standards, since they provide the guides for recreation planning on Nigerian University Campuses.

Like all subjective standards, recreational standards are products of societal norms, which change over time modified by local social, physical and cultural conditions. Such standards cannot be standardized and static. They must change following the evolution of societal norms, structure of the use of leisure time, users aspirations, and endeavours. A standard that is correct in one place

need not necessarily be correct in another. And even after such standards are correctly drawn up in a particular place, they still need to be constantly revised because the passage of time almost invariably invalidates them.

Furthermore, the strict adherence to the use of number of hectares per person has placed unnecessary emphasis on the provision of space and in many places at the expense of the perhaps the more important issues of the location and the use of this space.

However, the N.U.C. standard guides for University planning realised the fact that standards should not be rigid, they should be constantly revised ovetime, therefore, it is stated in the guide that provision of facilities may be reviewed following survey.

Figures 3.27, 3.28, 3.29 and 3.30 show users' responses as regards the adequacy of existing facilities in Ahmadu Bello University(Main Campus), University of Ife, University of Ilorin and University of Jos respectively.

FINDINGS -

a) Students' Centre - in universities of Ilorin, Jos, and Ife and Ahmadu Bello University (Main Campus) the Students' Centre fall below N.U.C. standard, however, 62% of users in Ife considered the facility adequate, 80% in Jos

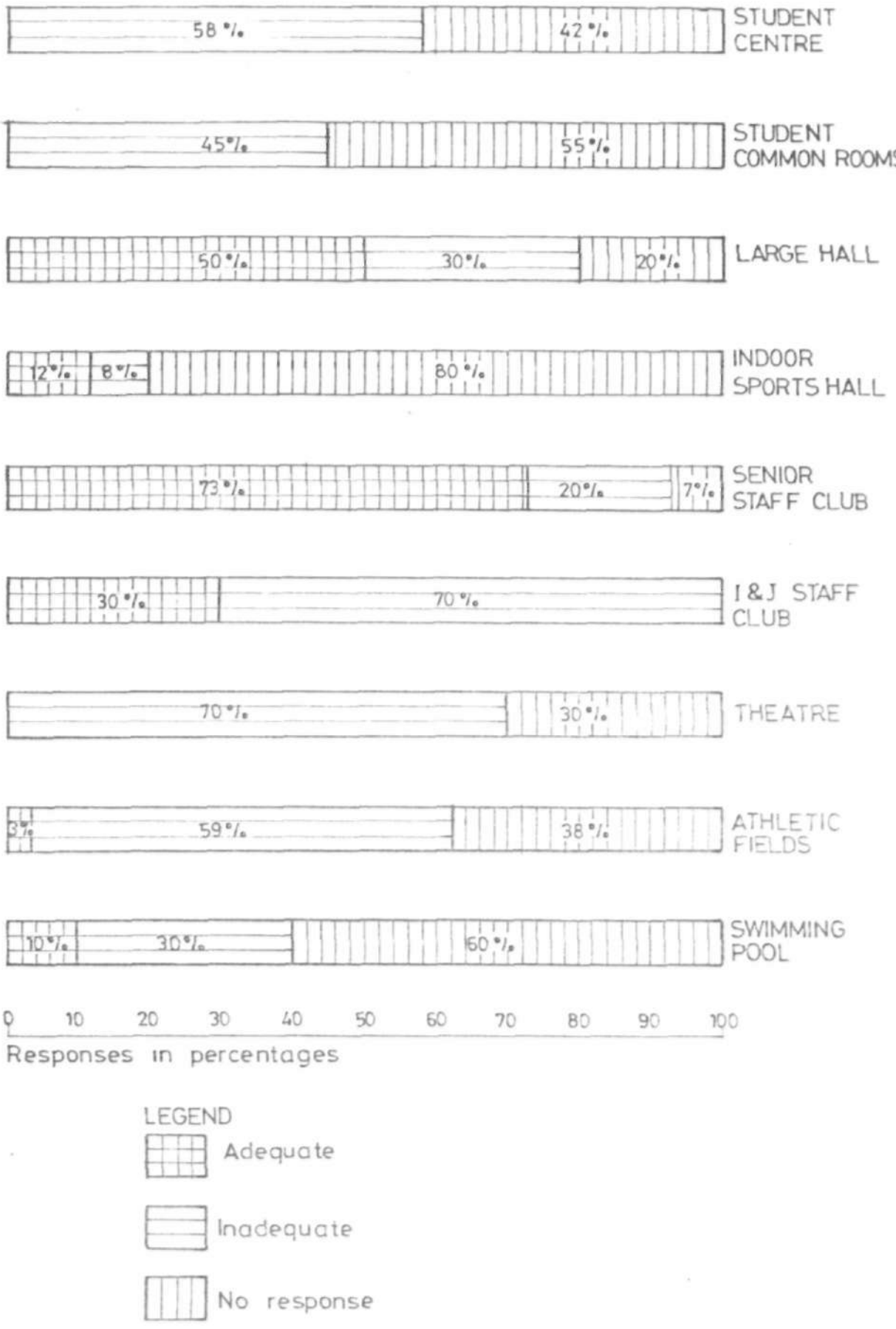


FIG.3.27:ADEQUACY OF EXISTING FACILITIES — A.B.U. (MAIN CAMPUS)

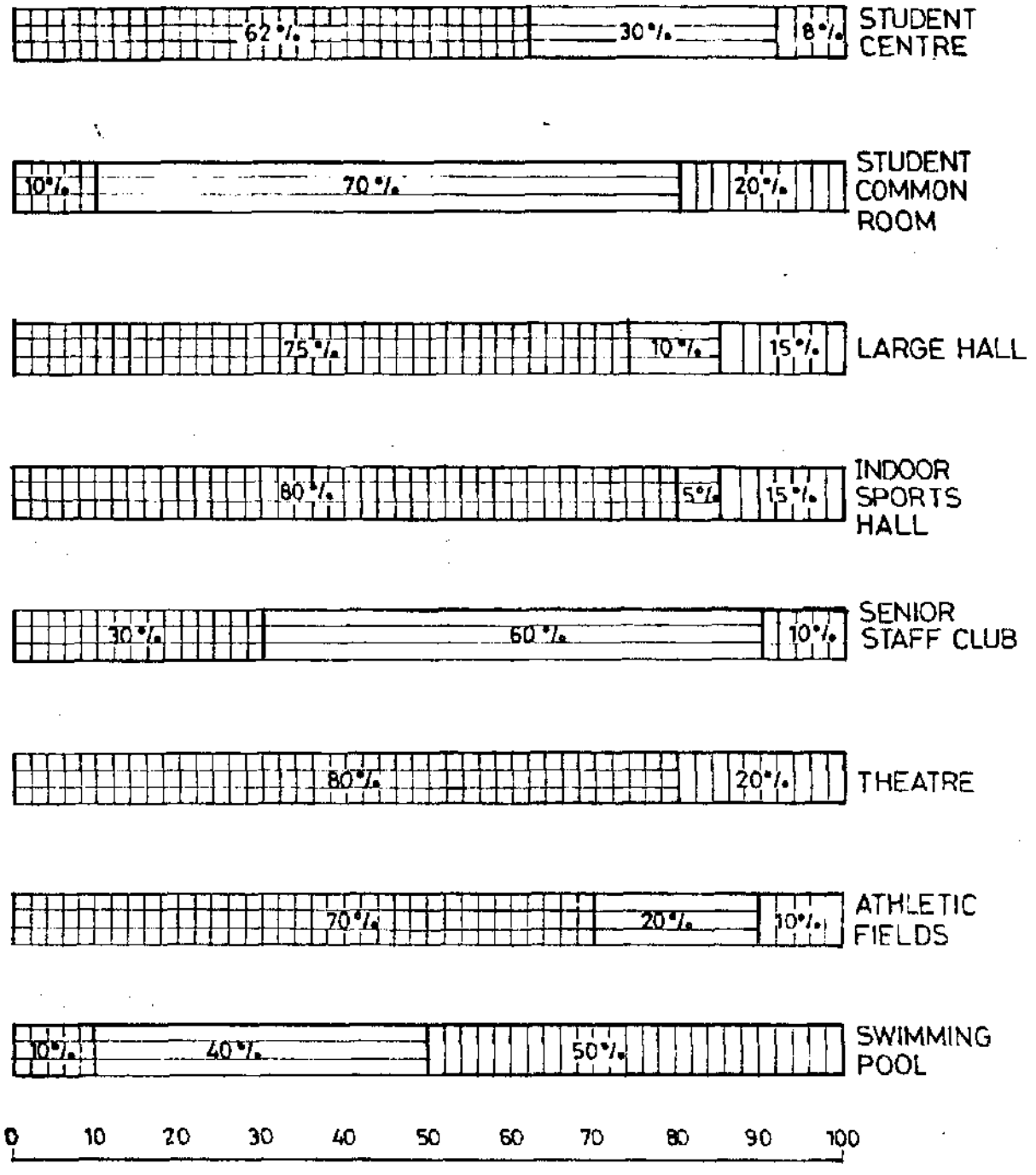


FIG.3.28: ADEQUACY OF EXISTING FACILITIES – UNIVERSITY OF IFE

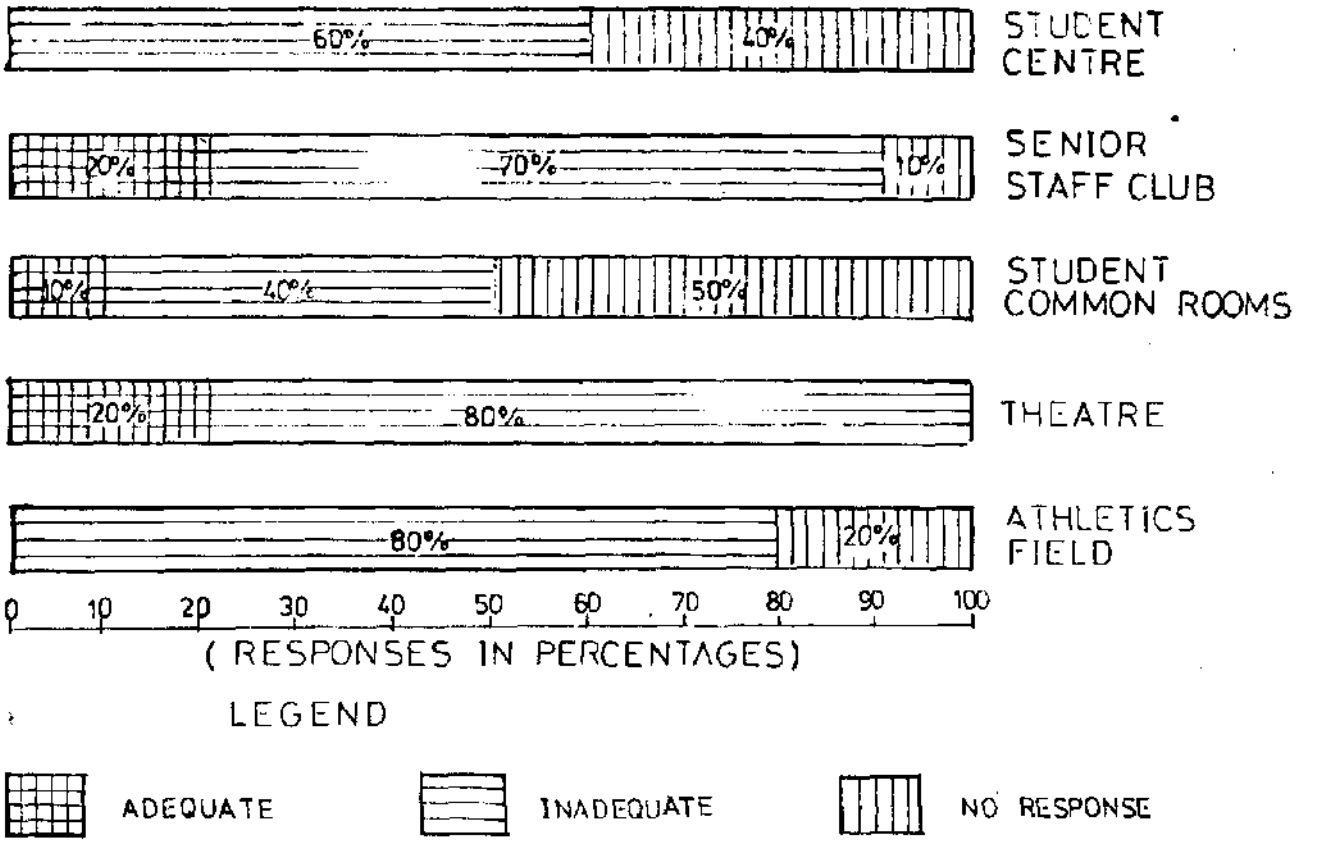


FIG 3.29 ADEQUACY OF EXISTING FACILITIES UNIVERSITY OF ILORIN

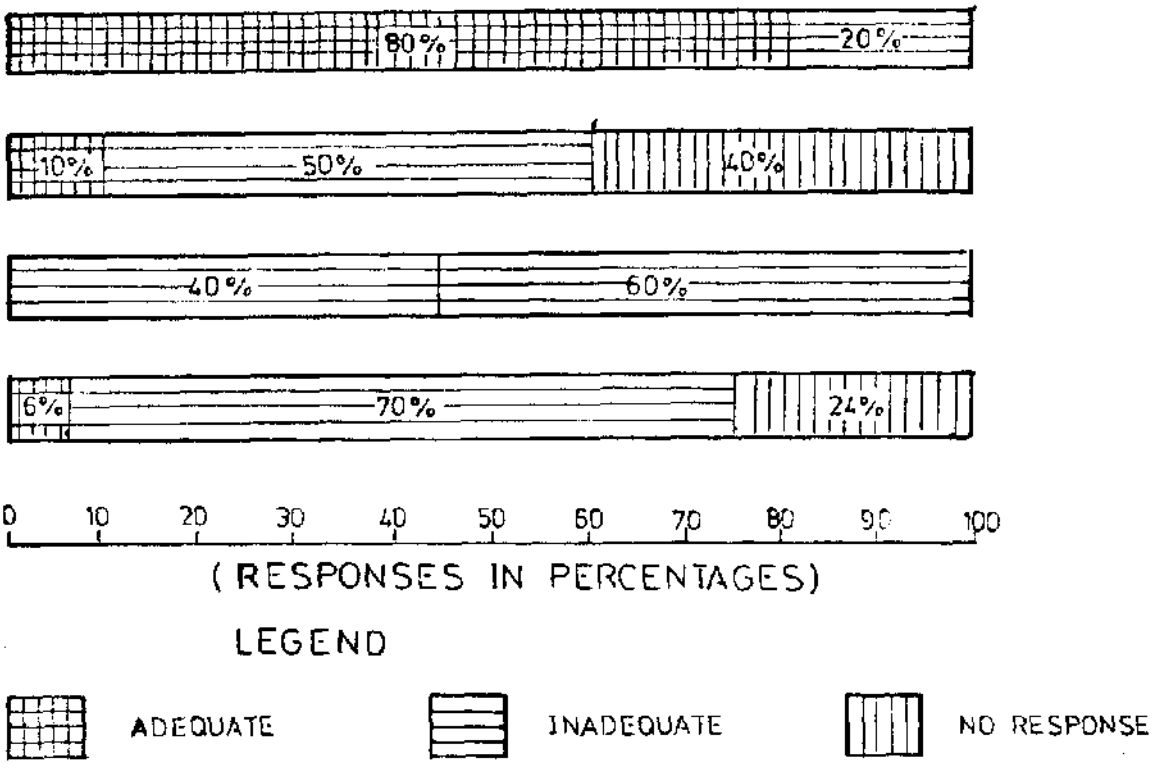


FIG. 3.30 ADEQUACY OF EXISTING FACILITIES UNIVERSITY OF JOS

considered it adequate, for A.B.U. 58% adequate and for Ilorin 60% considered it adequate, some felt it is inadequate others did not give answer. This indicate that majority of the users consider the students' Centres adequate.

b) Students' Common Rooms

These facilities fall below N.U.C. standard for all the universities. For University of Ilorin 40% condidered it inadequate, 70% for University of Ife and 50% for Jos. Again these form majority. Therefore th common rooms are considered to have fallen short of users expectations.

c) Assembly Hall -

Only University of Ife, and A.B.U. (Main Campus) have this facility out of the four. 75% considered it adequate for Ife, 50% for A.B.U., these facilities in these two places fall a bit below N.U.C. standard. However, majority think it is adequate.

d) Indoor Sports Halls -

For A.B.U. the facility is a bit above N.U.C. standard, while for Ife it falls a bit below N.U.C. standard, for A.B.U. 12% think it is adequate, while 80% of the respondents in Ife share the view, this forms majority of the responses, hence, the facility can be considered adequate.

e) Senior Staff Club -

The facility is above N.U.C. standard for all the universities. 73% of the respondents in A.B.U. feel it is adequate, 30% for Ife, 40% for Jos and 20% for Ilorin, majority feel it is adequate.

f) I&J Staff Club - Only A.B.U. has this facility and 70% of the respondents feel it is inadequate, It also falls b below the N.U.C. standard.

g) Theatre - For A.B.U. and Ife the existing space allocations is above N.U.C. standard, while for Ilorin, it is a bit below N.U.C. standard. 70% of the respondents in A.B.U. feel it is inadequate, while 80% share the same view i. University of Ilorin. This means it falls short of the expectations of the majority of the users.

h) Outdoor Sports ground - The space allocations fall short of N.U.C. standards for all the universities. 80% of the respondents for University of Ilorin considered it inadequate, 59% for A.B.U., 20% for Ife and 70% for Jos. Majority of the respondents feel it inadequate.

i) Swimming pool -

Also fall short of N.U.C. Standards for the universities 30% of the respondents from A.B.U. feel it is inadequate, while 40% in UnIfe feel the same way.

These people do not form majority so it may not be considered inadequate.

Based on users responses and the existing space allocations, it is worthwhile to revise the standards. Table 3.19 shows the evaluation of N.U.C. standards and the suggested standard. For facilities that are considered inadequate and also fall below N.U.C. space standards, it is assumed that if those facilities are upgraded the users may be satisfied, Facilities that have satisfied N.U.C. standards and are still considered inadequate the standards have been increased, while for facilities that fall below the standards and are considered adequate the standards have been reduced. Furthermore, for facilities that are above N.U.C. standards and are considered adequate the standards have been increased.

Table 3.19 - EVALUATION OF N.U.C. SPACE STANDARDS (mm^2)

Indoor Facilities	Space allocations/F.T.E.				Response in %		Suggested Standards (in m^2
	N.U.C.	EXISTING	SHORTFALL	SURPLUS	ADEQUATE	INADEQUATE	
1) Students' Centre	0.76	0.20	-0.56	-	50	50	0.76
2) Students' Common Rooms	0.57	0.30	-0.27	-	7	93	0.57
3) Large Hall	0.20	0.04	-0.16	-	45	55	0.20
4) Indoor Sports Hall	0.20	0.10	-0.10	-	88	12	0.10
5) Senior Staff Club	0.35	2.8	-	+2.45	62	38	3.0
6) I&J Staff Club	0.35	0.025	0.325	-	30	70	0.35
7) Theatre	0.04	0.036	-0.004	-	40	60	0.06
Ou Outdoor Facilities	Space allocations for total Population						Standards for Total Population
8) Outdoor Sports Ground	190,000	40,000	-150,000	-	25	75	190,000
9) Swimming Pool	5,000	3,000	- 2,000	-	22	78	5,000

Note Averages for the four universities (namely, Ife, Ilorin, Jos and A.B.U.) have been used. Standards are given per full time Equivalent Student, except for outdoor facilities where total space requirements have been given.

3.46 RECOMMENDATIONS BASED ON INFERENCES DRAWN

Based on the findings from various surveys the following recommendations are made.

a) Upgrading of the existing facilities -

Facilities that are considered inadequate should be upgraded following a careful survey to determine whether the inadequacy is in terms of space or equipments.

b) Provision of New Recreation Facilities -

New Facilities should be provided based on users demand and preferences. Provision should be based on student/staff outdoor and indoor facilities. Facilities that can be jointly used should be provided also to promote social and academic interactions. Staff facilities should be located in staff residential areas, students' recreation facilities be provided in students' residential areas to ensure easy accessibility to users. Common or central facilities can be located in academic area or central core, if such location is away from students' hostels internal bus service should be introduced, to reduce the trave time for pedestrians.

In Table 3.20 the list of possible indoor and outdoor facilities is given.

Table 3.20 - OUTDOOR/INDOOR FACILITIES FOR DIFFERENT USERS

Users	Indoor Facilities	Outdoor Facilities
Staff	Discotheque, Indoor games (Staff Clubs,	Minipark for Children (Staff clubs and open spaces within Staff residential areas) Swimming pool and sports facilities
Students	Discotheque, Indoor games(Students' Centre, Common rooms)	Organized open space within students residential areas, sports facilities
Common Facilities	Auditorium, Museum Indoor Sports Hall	Stadium, Park, Camping area organized open spaces within academic areas.

c) Since time is constraint on recreation open spaces within residential, academic areas and central cores should be organized for short time relaxation and weekend facilities be provided. Furthermore recreation facilities provided should not be costed more than necessary.

d) Facilities that are used for both recreational and educational purposes should be time-tabled in such a way as to make it available to different users at different time of the day. Different periods will be set aside

for recreational uses and teaching. Furthermore coaches should be employed to train intended users.

e) Landscapping should be encouraged along roads and foot paths, to provide shade for strolling and sight-seeing. Also recreation facilities should be located near physical feature where possible, for beautiful scenery that is required for recreation.

f) Lastly, a good management is required for efficient and effective recreation development. This can be ensured by employing all the necessary skills that is required for proper management.

CHAPTER FOUR

4.00 PROPOSALS FOR A.B.U. (Main Campus)

4.10 SITE ANALYSIS

4.11 LOCATION OF AHMADU BELLO UNIVERSITY (Main Campus)

The University Main Campus is located in Samaru, about 15 kilometers from Zaria Old City. Figure 4.10 shows the location of the Main Campus in relation to other parts of Zaria.

The whole of Zaria town is situated at latitude 10° $10'$ North and a longitude 7° $38'$ East. The town is almost centrally located in Northern Nigeria and is well connected by road and rail with the rest of the country.

4.12 PHYSICAL CHARACTERISTICS -

a) Topography - The main campus lies on the elevated plain at an altitude of 670 metres above sea level. The plain is gently sloping down towards Kubani River and is cut by numerous valleys and streams (See Figure 4.11) for Zaria Urban area Topography).

b) Geology - The campus area is largely underlain by indifferentiated Pre-Cambrian Basement Complex formations and comprises of both igneous and metamorphic rocks. The igneous rocks are mainly Biotite, Gneisses and older granites while

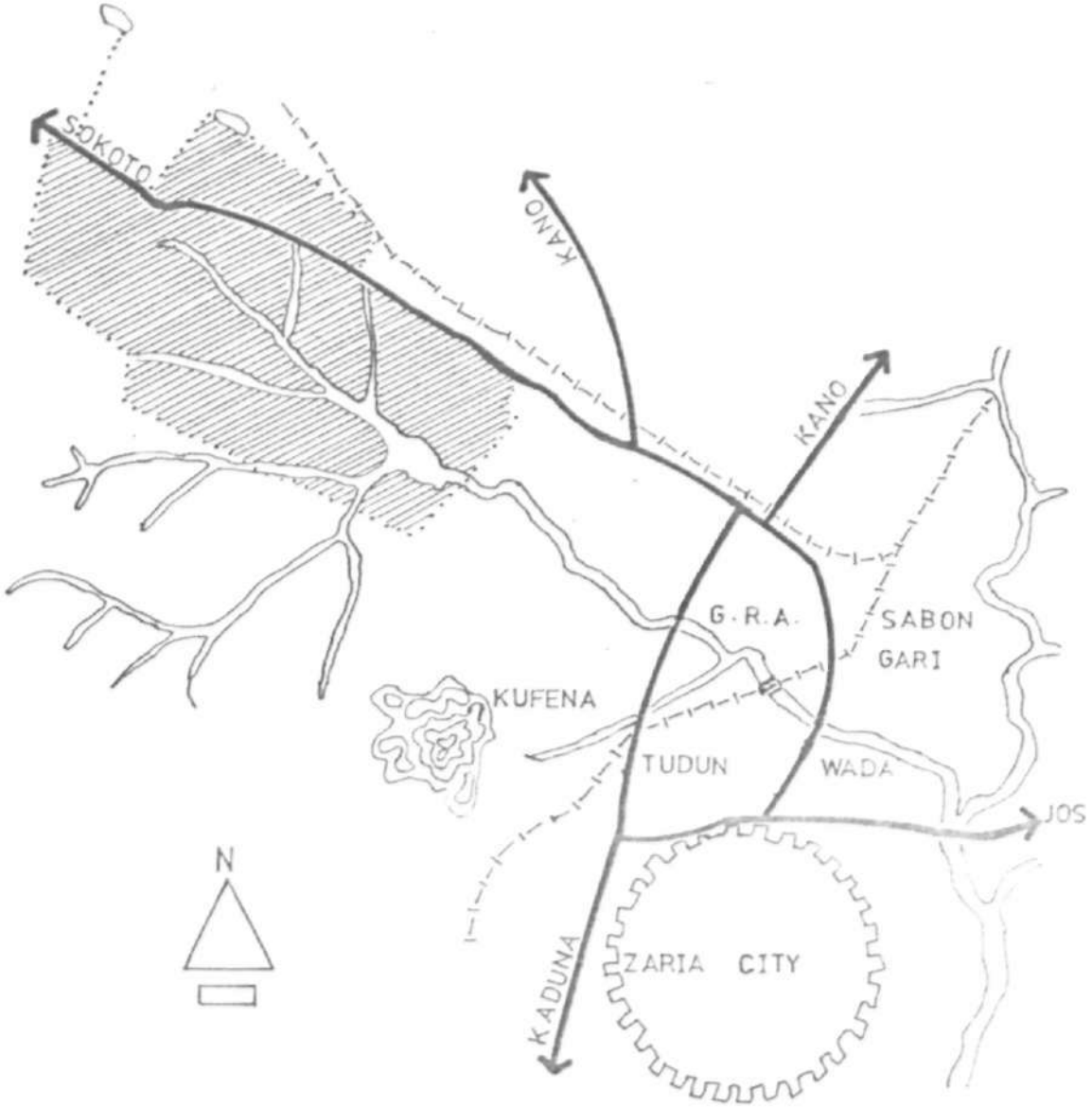
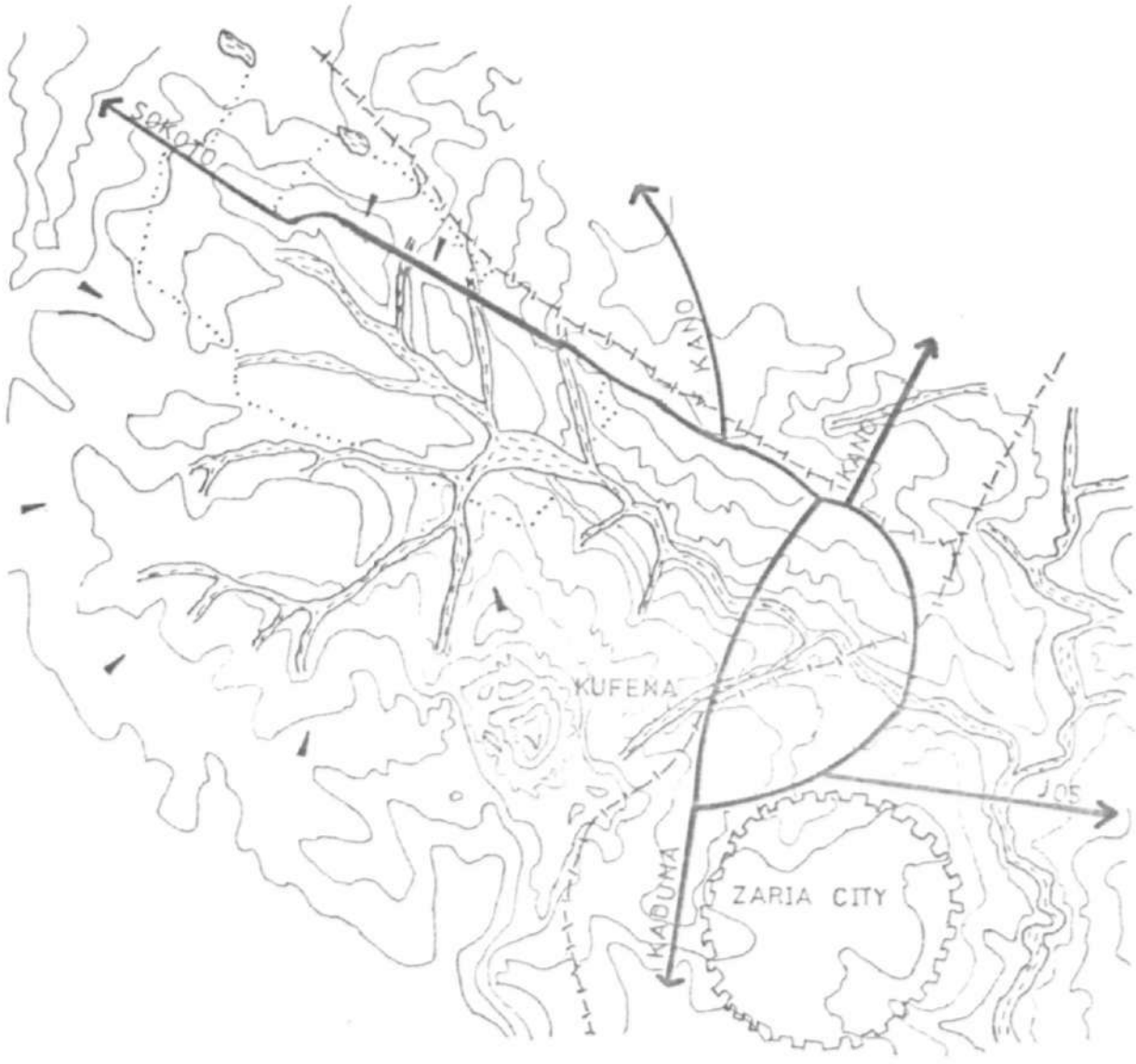


FIG.4.11 ABU LOCATION - SKETCH LAYOUT PLAN OF ZARIA



LEGEND

CONTOUR LINES

DIRECTION OF SLOPE

STREAMS AND RIVERS

ABU CAMPUS AREA

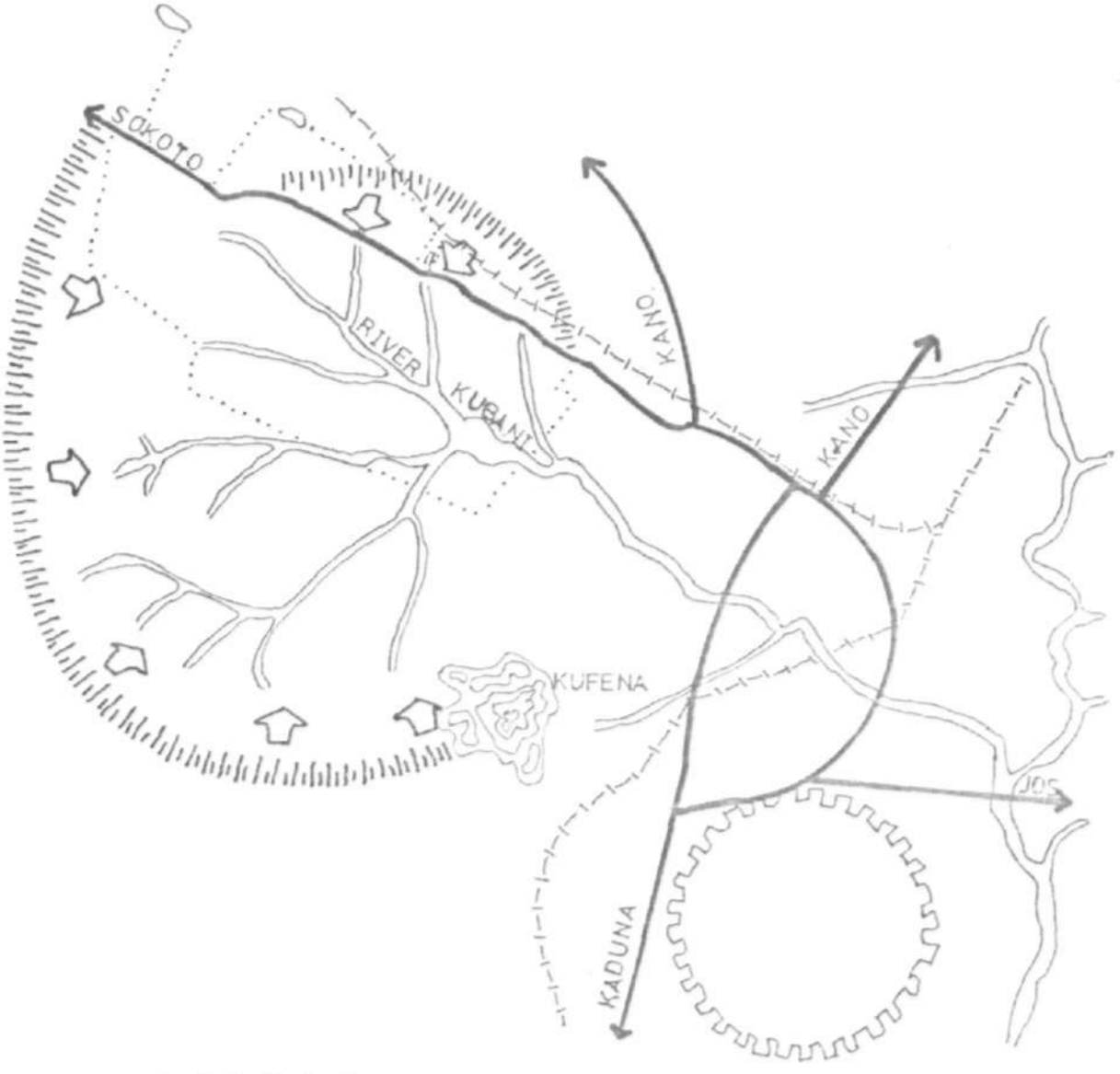
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FIG.4.12 ZARIA URBAN AREA: topography

metarmorphic sediments include quartzites and schistes found mainly in stream valleys. Alluvial deposits of laterite overlie most of the area.

c) Soil - The soil is part of the Zaria soil group which is known to have covering material of up to 14 feet in depth. The soil material consist of several feet of deposited silty sand overlying sedentary decomposed rock. Most of the soils allow good moisture retention due to their high proportion of clay content and hence cannot sustain intensive agriculture, it could be better utilised for recreational purposes.

d) Drainage - The main campus area and the whole of Zaria is part of a watershed that divides Sokoto and the Chad Basins. From this watershed, numerous rivers and streams flow out and these include the Kubani River. During the dry season however, Kubani River contains only small discontinuous pools along it course. A dam has been built along the Kubani River for water supply, however, this can also support recreational activities like boating and swimming (see figure 4.14, 4.12).



LEGEND

KUBANI RIVER CATCHMENT AREA

ABU CAMPUS AREA

STREAMS AND RIVERS

N

FIG.4.13 ZARIA URBAN AREA:
drainage

4.13 RECREATION PLANNING AND DEVELOPMENT IMPLICATION OF THE SITE'S PHYSICAL CHARACTERISTICS -

The plain slopes towards the Kubani River, this allows the recreationalist who is located on higher plain a good view of the Kubani recreation environment. The Kubani river and dam provide beautiful recreation environment within the site.

The clay in the subsoil is of expansive type, therefore foundations of buildings will have to be designed to transmit an acceptable bearing pressure to the foundation soil. However, the soil pose no serious problem to recreation development. Furthermore, the problem of soil erosion within the site can be solved by grading the affected area, planting of grasses (like Bahama grass) and having a network of interceptor surface drainage laid out.

4.14 CLIMATIC CHARACTERISTICS

Due to its location on the elevated plateau, Zaria enjoys reasonable good tropical savanna climate with distinct wet and dry seasons.

a) Rainfall - Samaru has a rainy period of approximately 210 days (May to October) and a mean annual rainfall of about 1100 mm. Much of the rainfall occurs as storms of a short duration but high intensity.

b) Temperatures

The daily mean maximum temperature is as high as 38°C in April and as low as 10°C in December and January.

c) Humidity:-

Mean percentage relative humidity levels of more than 70% are recorded for the July to September period peaking at 82% in August and to less than 10% during the harmattan period. Evapotranspiration rates are higher during the hottest period of the year.

c) Winds:-

The prevailing winds in the whole of Zaria and Samaru are the North - East and the South-west trades. The former, is a dry, cold and dust laden wind which blows across the land between November and March bringing in dry conditions. The sout-western lies on the other hand is a warm and moist wind that blows across the ocean into the land between April and October accompanined by heavy rainfalls.

4.15 RECREATION PLANNING AND DEVELOPMENT IMPLICATIONS OF THE CLIMATIC CHARACTERISTICS OF THE SITE

For design purposes, the climate of the November to May period is the most taxing for the Samaru and the

whole of Zaria. It is the period of greatest diurnal temperature range, highest and lowest actual temperatures, highest global radiation and sunshine hours and the period which suffers from dust - laden Harmattan wind.

Indoor and outdoor facilities have to be planned to take care of seasonal variations in climate, so that users can utilize recreation facilities irrespective of the time of the year. Foot paths, parking spaces and roads should be shaded to protect vehicles and pedestrians from direct sun rays. The recreation areas should be provided with green belts (with trees) to reduce wind speed and also to protect users against direct sun rays. The plants to be used for landscapping should be those that can provide shade through out the year.

The outdoor sports ground has to be oriented in North-South direction, so as to protect users against direct solar radiation. The buildings should be oriented in such a way that unnecessary sun glare is avoided, this can be achieved by orienting the long elevation of the buildings in North-South direction, while the short elevation can be oriented in East - West direction. The other alternative orientation is N. West - S. East direction of the long elevation of buildings. These arrangements also protect the buildings against violent storm winds.

Vegetation -

Samaru and the whole of Zaria is situated in the guinea savanna vegetation.

It is characterised by thick woodland with grasses like elephant grasses, bahama grass ., shrubs and trees like baobab, locust beans and acacia. However, the Samaru area has been subjected to intense human interferance through cultivation and clearance. As a result vegetation cover is a secondary climax flora characterised by open savanna, with short scattered trees and acacia shrubs.

Such an open savanna vegetation provides recreation environment with visual windows and they allow users a view of the beautiful scenes. So they are good for recreational purpose.

4.17 EXISTING RECREATION FACILITIES ON A.B.U. MAIN CAMPUS

Ahmadu Bello University like all others in the country is deficient in planned recreation facilities. This deficiency is further compounded by lack of enough recreation facilities in Zaria town. The existing facilities on the main campus include :-

a) Outdoor facilities:-

I) Outdoor Sports ground - includes athletic field, hand ball and lawn tennis courts, hockey and football pitches.

are located adjacent to faculties of veterinary medicine and pharmaceutical sciences. Other football pitches include the ones at Intermediate and Junior Staff quarters near Danfodio Hall and the one in Staff School. The lawn tennis courts are located between Amina and Suleiman Halls, while handball courts are situated in fromt of Amina Hall adjacent to the Old book shop. Lawn tennis courts are also available in the Senior Staff Club and are jointly used by the Senior Staff members and the pupils in Staff School.

Most of these facilities lack enough space for spectators. Furthermore, lack of good organization and coaching staff limits participation.

II) Swimming pools -

There is one of olympic standard size near Amina Hall and one in the Senior Staff Club. However, these swimming pools are not often used, especially the one near Amina Hall, this may be due to lack of supervision for non-team members.

III) Parks :-

The university garden consists of a dirty paved area and few trees. Bounded by the Ribadu and Alexander dinning halls. Unless one is told, It is not easy to identify.

2. The love garden - is between the old bookshop and the Convocation square, it use to be an important recreation area, however, the expansion of the Convocation square and the building of the new bookshop has made the whole area to loose its value.

3. Art gallery - is managed by the department of Fine Arts and Industrial design. The Ceramics there provide a beautiful recreation environment, there are also a kiosk and seats on the site for relaxation.

IV) Drama Village - is part of English department, it is an important recreation area, however, it is small and does not have enough room for spectators. Furthermore, It's location imposes unnecessary walking distance on the users most of who are pedestrians.

b) Indoor facilities

I) The Students' common rooms in the halls of residence - apart from the buffets, the seats and the Television Sets, the common rooms are virtually empty.

II) The Student Centre - It was formally the academic Section of the University's administration office. Apart from the bar, seats and the 'Suya' area, it is also empty. However, the new student centre near A.B.U.

dam is almost completed, it is hoped that this will serve recreational needs of the students.

III) The Senior Staff Club -

The senior Staff Club in addition to outdoor recreation facilities that have been discussed earlier on, has a bar and darts board. It is located adjacent to the Staff School.

IV) Intermediate and Junior Staff Club - is located in I & J Staff quarters near Danfodio Hall. It has only a bar which is not often utilized by the members of staff except for some students who often go there to drink.

V) The gymnasia - there is one near assembly hall and another near area B.Z. The old one is often utilized by people in the Judo and Karate Club for their practices. While the one near area B.Z. is used mainly by the department of physical and health education for teaching, and by some members of staff. The location of the one near area B.Z away from students' residential area does not encourage students' participation. Furthermore, the facilities in this indoor sports Hall are found elsewhere on the campus and very close to students' hostels.

VI The Assembly hall - is used for both educational and recreational purposes. The recreation activities for which the assembly hall is used include filmshows,

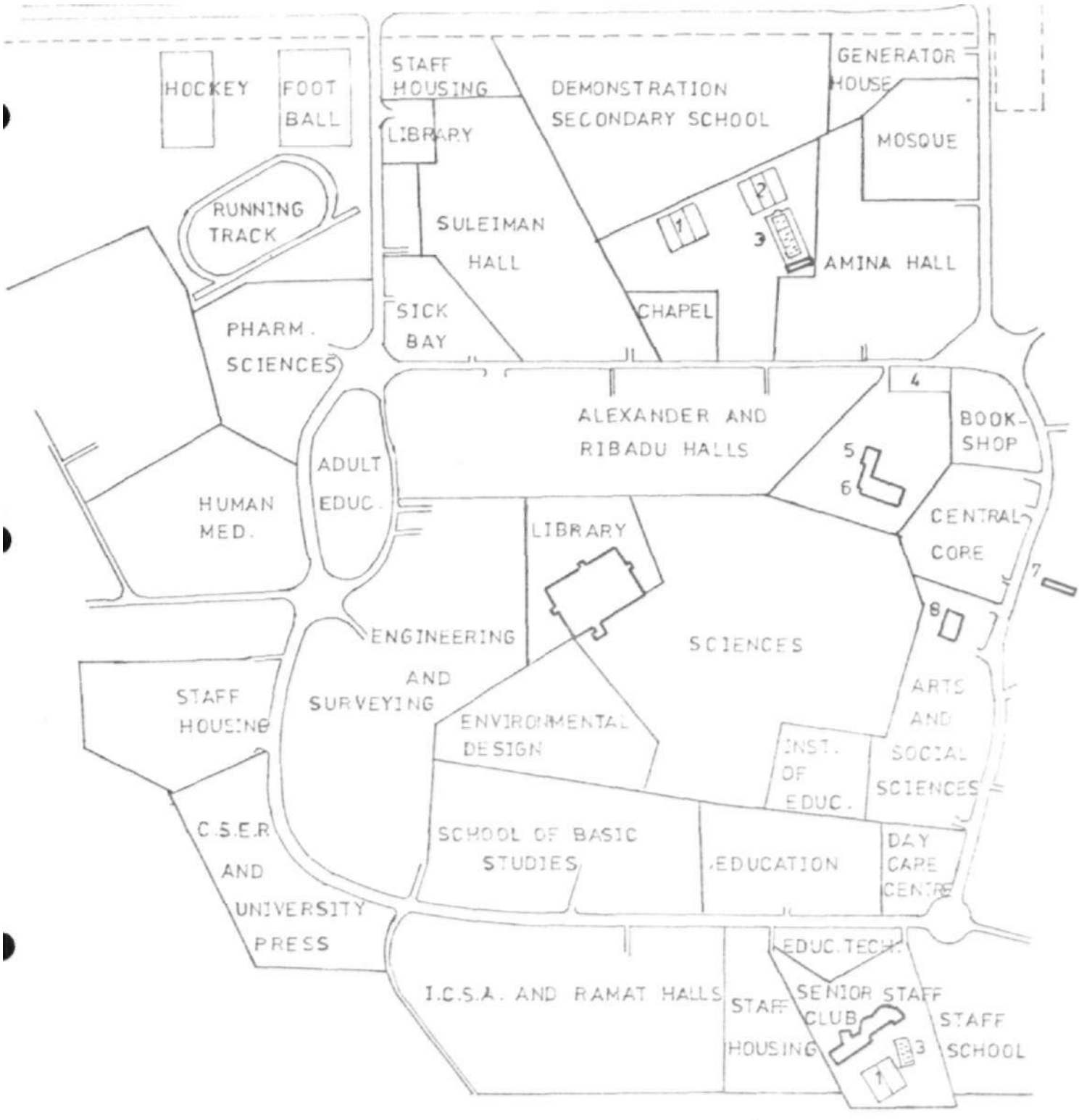
drama and cultural recreation. It attracts a lot of users because of its close proximity to the student hostels.

VII) Museum - It shares the same building with the School of Basic studies' Library. Most people are not even aware of its existence and it is not often used except for educational purposes by related departments. See figure 4.14 for existing facilities and their locations, and figure 3.25 for users' responses as regards the adequacy of existing facilities.

4.20 PLANNING PRINCIPLES AND CONCEPTS -

The principles governing University planning as a whole are related to the fact that a university is "a Society of individual living and working together for advancement of learning and dissemination of knowledge at the highest possible level of intellectual achievement and spiritual aspiration"[1]. Hence, it is necessary to provide an environment that is conducive to learning living and recreation and thus promote optimal academic performance and social interaction, for these purposes recreation facilities are located close to places of work and residence to ensure during and ater work interactions (both social and academic)

1. Dober, R.P. (1965). The New Campus in Britain, ideas and consequences for the United States; Educational facilities Laboratory, New York, p. 48



LEGEND

1 TENNIS COURTS
2 CRICKET PITCH
3 SWIMMING POOLS
4 BASKET BALL COURTS
5 GYMNASIUM
6 ASSEMBLY HALL
7 STUDENTS CENTRE
8 MUSEUM

30 15 0 30 60 90
METRES

FIG.4.14 LOCATION OF EXISTING FACILITIES

and to reduce walking distances, by integrating the basic campus elements .

4.21 PRINCIPLES OF LOCATING RECREATION FACILITIES -

a) Location of Students' Facilities near/in the Students' hostels, this ensures after work interaction among the students, the walking distance is also reduced to a minimum, since the facilities are close to users.

b) Location of Staff Facilities near/in the Staff quarters also ensures after work interactions among members of staff and their families, walking distance is also reduced.

c) Location of Central Facilities or Facilities that are jointly used by the different groups in the community - Such facilities can be located in academic areas or Central Core to ensure during and after work interactions between the different groups and also to keep such areas alive for the whole day. However, such facilities are sometimes located near the Students' hostels, to reduce the walking distance for students who are mostly pedestrians, while the members of staff who mostly mobile can journey to such location.

Two major concepts have been evolved from these principles, these are the dispersed and the concentrated concepts.

4.22 ALTERNATIVE CONCEPTS FOR RECREATION PLANNING AND THEIR EVALUATION

a) Concentrated Concept - in this concept the attempt is to house all the recreation facilities on the same piece of land.

I) Advantages :-

1) It takes of less area

2) It allows direct contact between the individuals in the community, since all the facilities are housed on the same piece of land.

3) If the structures used are cheap it could be economical.

II) Disadvantages -

1) It is not easy to integrate elements of the campus, and this may lead to functional inefficiency. The Campus elements are academic, residential, recreation, communal and central core areas.

2) It is not advisable to have facilities in the same location because of seasonal variations in climate which set certain limitations on use of some facilities at certain period of the year.

3) It is expensive to develop a large site at a time with the little fund available it may not be possible.

4) It is difficult to acquire such a large site that is required, especially in a developed area,

5) The location may impose unnecessary walking distance on the users, since it is not easily integrated with the rest of the campus.

6) It does not encourage future expansion.

b) The Dispersed Concept - the facilities are located in different places, they are spread out in hierarchical order and linked together in such a way that they form a whole.

I) Advantages -

1) The series of built up areas and open spaces that are associated with this concept reflects our traditional planning concept. It provides variety which adds aesthetic value to the whole place.

2) It is suitable for the seasonal variations in climate and allows users the chance to exploit the use of natural ventilation.

3) It is possible to carry out the building process in phase depending on the availability of fund.

4) It promotes functional efficiency by allowing the integration of places of work, living and recreation, furthermore, the walking distances between these places are reduced.

5) It allows the use of patches of available space in an area that is already developed.

6) Simple building materials and construction methods can be used.

II Disadvantages -

1) It uses of more space at long run.

2) It could be more expensive in the long run

3) It may limit the after work contact between people living in different areas.

The Dispersed Concept is found most suitable and appropriate, because it is dynamic and flexible and also allows for integration of the different elements of the university system. Furthermore it recognizes the importance of nature to relaxation.

See Figures 4.15 and 4.16, for planning concepts.

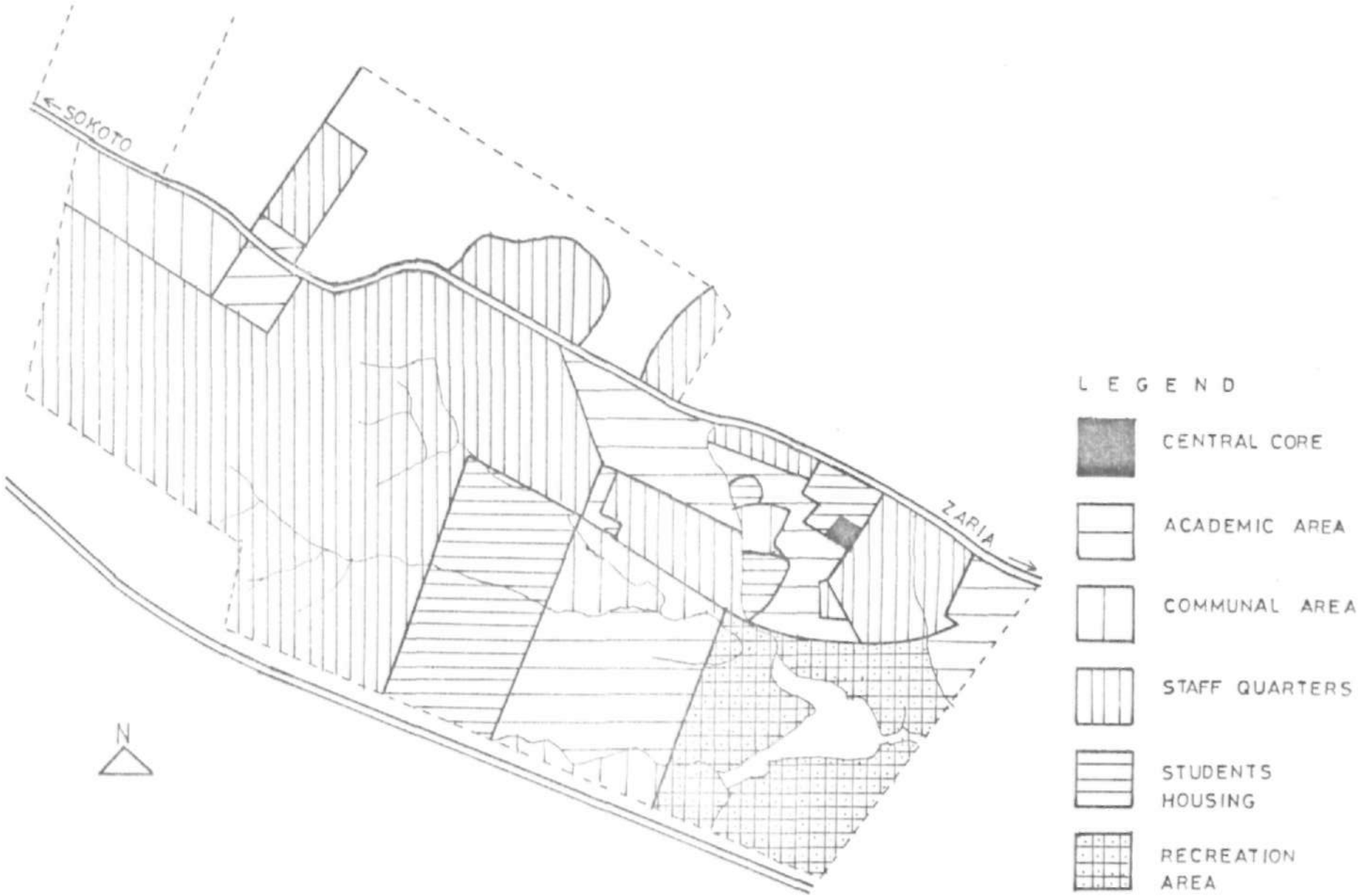


FIG.4.15 CONCENTRATED CONCEPT (abu main campus)

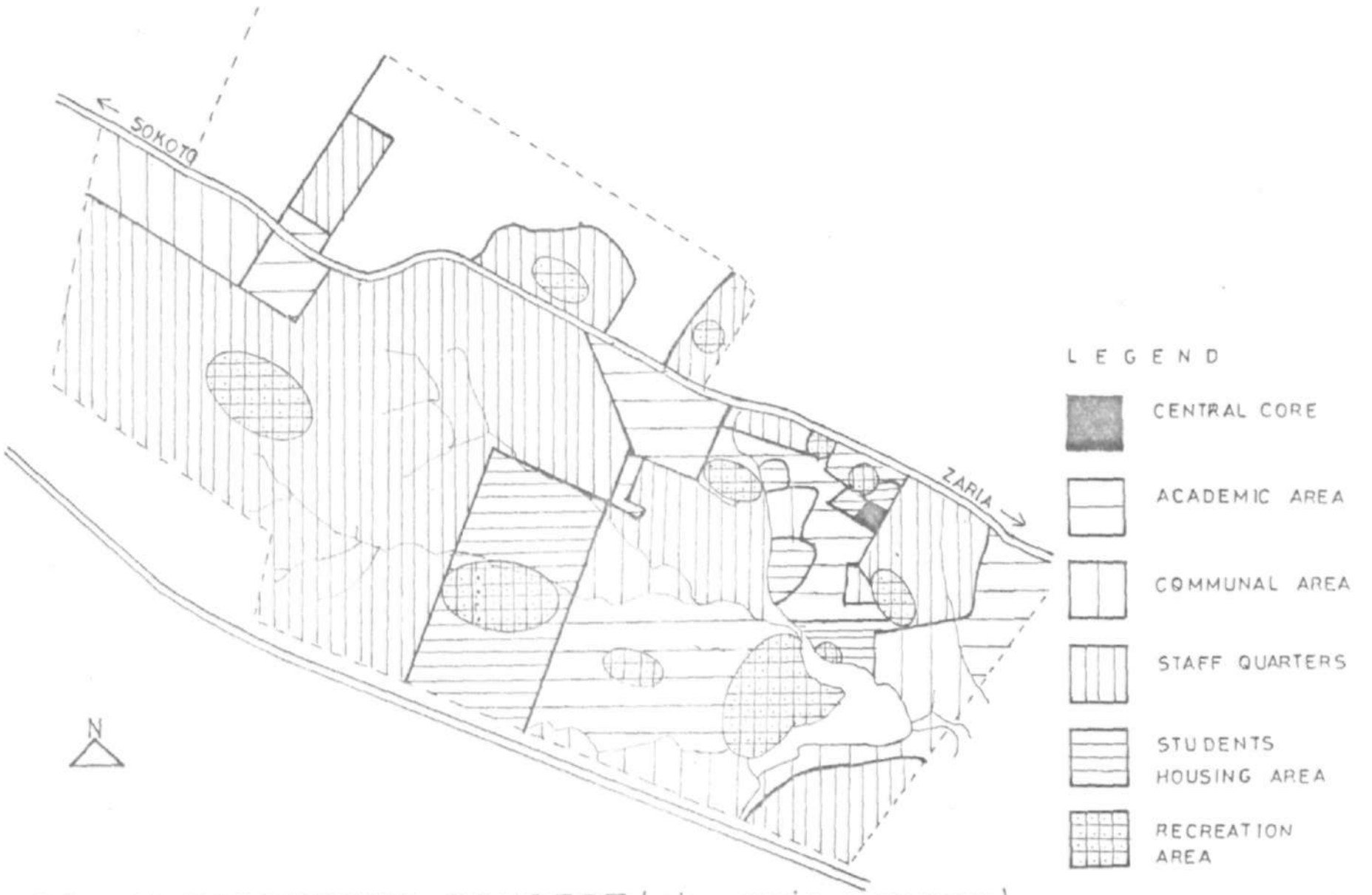


FIG. 4.16 DISPERSED CONCEPT (abu main campus)

4.30 SCHEDULE OF REQUIREMENTS

The suggested space standards have been used to calculate area required for facilities indicated in the standard guide (See Table 3.20) for evaluation of N.U.C. Standard). For facilities that are not provided by the standard guide space allocation, in existing literature and estimations of potential users have been used to calculate the space requirements.

In establishing the standards the population of the Main Campus has been projected to the year 1995 to cover the Master Plan period. The projected total population is 26,000; Students 14,000; Senior Staff 2,600; Intermediate and Junior Staff 9,400 (Staff population has been projected on the basis of recommended N.U.C. student: Staff ratio).

4.31 EXISTING INDOOR FACILITIES - SPACE REQUIREMENTS

a) Students' Centre - Projected

Students population is 14,000

Standard is $0.76m^2$/F.T.E.

(14,000 X 0.76) = $10640m^2$ or 1.1ha

existing area is 0.21ha,

Shortfall = (1.1 - 2.21)ha = 0.89ha.

b) Students' Common Rooms - Projected population is 14,000, Standard is 0.57m^2/F.T.E., Space required is (14,000 X 0.57)m^2 = 7980m^2 or 0.8ha existing area is 0.33ha.

Shortfall = (0.8 - 0.33)ha = 0.47ha.

c) Large Hall - This is a facility that is jointly used by both Staff and Students, therefore projected total population is used that is 26,000. Standard is 0.20m^2/person.

Area = (26,000 X 0.20)m^2 = 5200m^2 of = 0.52 ha.

Existing area is 0.1ha. Shortfall is (0.52 - 0.1) = 0.42ha.

d) Indoor Sports Hall - Total population is 26,000, Standard is 0.10m^2/person,

Area = (26,000 X 0.10) = 2600m^2 = 0.26 ha

Existing = 0.46,

Surplus = (0.46 - 0.26) = 0.2ha.

e) Senior Staff Club - 2,600 = projected Senior Staff population.

Standard is 3.0 per Senior Staff member

Area (2,600 X 3.0) = 7,800 = 0.8ha.

Existing is 1.2ha

Surplus is (1.2 - 0.8) = 0.4ha.

f) Intermediate and Junior Staff Club -

Projected I&J population is 9,400.

Standard is $0.35m^2$/I&J Staff member

Area is (9,400 X 0.35) = $3290m^2$ = 0.33ha.

Existing = 0.06

Shortfall = (0.33 - 0.06) = 0.27ha.

4.32 EXISTING OUTDOOR FACILITIES -

a) Outdoor theatre. Total population is 26,000,

Standard is $0.06m^2$/person

Area = (26,000 X 0.06) = $1560m^2$ = 0.12ha

Existing is 0.1ha

Shortfall (0.12 - 0.1) - 0.02ha

b) Outdoor Sports Ground

Standard is 19ha - For total population and also to include space for competion.

Existing is 4.5ha

Shortfall is 19 - 4.5) = 14.5ha

c) Swimming Pool - Standard is 0.5ha for total population and for the purpose of competition.

Existing is 0.30

Shortfall is (0.50 - 0.30) = 0.20ha

Table 4.10 shows the schedule of requirements for these facilities.

4.33 PROPOSED INDOOR FACILITIES -

a) Discotheque from the survey 5% of the population require this facility. However, no space has been allocated to this, the students' centre, Staff Clubs and Students' Common rooms can be used for such purpose.

b) Indoor Games - 5% of the population require this facility however, it can be provided anywhere, again the students' centre, Students' common rooms and Staff Clubs can serve for this purpose.

4.34 PROPOSED OUTDOOR FACILITIES -

a) Picnic Unit - Total population is 26,000.

Percentage of potential users is 7%

$\therefore$ potential users = $\frac{26,000}{1} \times \frac{7}{100} = 1,820$

All these people will not come at the same time, so it is assumed that 10% of these users will come at peak period that is $\frac{1,820}{1} \times \frac{10}{100} = 182$ users. A group of picnickers has been assumed for the campus. Therefore each picnic unit will accomodate 5 picnickers.

$\therefore$ Total picnic units required is $\frac{182}{5} = 36.4$

$= 36 - 37$ picnic units

A picnic unit is $40 - 100m^2$. Total area required for 36 - 37 picnic units is 0.15ha - 0.4ha.

b) Camping unit - a group of 5 is also assumed for this purpose. Total population is 26,000, Percentage of potential users is 2%

$\therefore$ Potential users = $\frac{26,000}{1} \times \frac{2}{100} = 520$

It is assumed that 10% of these people will come on a peak day. $\frac{520}{1} \times \frac{10}{100} = 52$ campers.

Camping units = $\frac{52}{5} = 10.2$ units.

= 10 - 11 camping units.

An area of 80 - 120m^2 is required for each camping unit.

Total earea required is 300 - 1,200m^2.

(0.08ha - 0.12ha).

c) Neighbourhood park - Total population is 26,000.

Percentage of potential users is 17%

$\therefore$ Potential users = $\frac{26000}{1} \times \frac{17}{100}$ = 4420 - 5000.

The standard is 0.6ha/1000 persons. A total of 3ha is required.

d) Sight- Seeing and Strolling - There is no specific standard for these two, however, a well landscapped environment is required to provide shade for people participating in these activities.

e) Boating - The dam can support boating. However, the water has to be treated first before such activity can take off. Small boats are required, the number depends on the available fund and estimated users.

f) Swimming - The dam can also support swimming. Diiving boards and life guards are required. This activity can also take off after the water has been declared safe.

4.35. SUPPORT FACILITIES, UTILITIES AND SERVICES -

a) Snack bars - area of $(10 \times 5)m^2$ $50m^2$ is assumed for one. 6 Snack bars have been proposed. Area for 6 snack bars is $300m^2$ or 0.03ha.

b) Restaurant - One restaurant has been proposed for the recreation area, with an area of $800m^2$ or 0.08ha.

c) Convenience - area of $5 \times 6)m^2$, $30m^2$ each for 6 total area of $180m^2$ = 0.18ha is required.

d) Parking 90° parking has been suggested. Each parking area is (6m X 2.4m) = $14.4m^2$. Total area for parking space is $19.32m^2$. Parking for picnic area. Since each unit accomodate 5 persons a car also take 5 passengers. Therefore, each unit will require a parking space. That

is a total of 36 - 37 parking spaces for picnickers. About 750m^2 or 0.075ha will be required for the picnickers' parking.

Caming area 10 units, will require about 250m^2 or 0.025ha for parking. For the sports and administrative areas a total of 200 cars is estimated. About 4,000m^2 or 0.4ha is required. Total area for parking is 0.5ha.

e) Management Office - area of (10 X 10) = 200m^2 for each Office is assumed. Total of 4 offices for the whole area = 800m^2 or 0.08ha.

Table 4.11 shows space requirements for the recreation facilities.

4.40 SCHEDULE OF REQUIREMENTS

Table 4.10 Comparative Analysis of Space Requirements for Existing Facilities (1985-1995) (in hectare)

Indoor Facilities	Existing	Proposed	Difference
a) Students' Centre	0.21	1.1	-0.89
b) Students' Common Rooms	0.33	0.8	-0.47
c) Large Hall	0.1	0.52	-0.42
d) Indoor Sports Hall	0.46	0.26	+0.2
e) Senior Staff Club	1.2	0.8	+0.4
f) I&J Staff Club	0.06	0.33	-0.27
Outdoor Facilities			
a) Outdoor Theatre	0.1	0.12	-0.02
b) Outdoor Sports Ground	4.5	19.00	-14.5
c) Swimming Pool	0.30	0.50	-0.20

Table 4.11 Schedule of Requirements for Proposed Facilities

(1985 - 1995) (Areas in hectare)

Indoor Facilities	No. of Unit	Area/Unit	Total Area	Note
a) Discotheque	-	-	-	The Students Centre, Common rooms and Staff Clubs can be used.
b) Indoor Games	-	-		
Outdoor Facilities				
a) Picnic area	36 - 37	0.004-0.01	0.15 -0.4	
b) Camping area	10 - 11	0.008-0.012	0.08 -0.12	
c) Neighbourhood Park	1	0.6ha/1000 persons	3.00	
d) Sight-Seeing and Strollin	-	-	-	No Standard, they can take place anywhere
e) Boating	-	-	-	No Standard, available water body can be used
f) Swimming	-	-	-	No Standard, available water body can be used
Support Facilities, Utilities and Services				
a) Snack bars	6	0.005	0.03	
b) Restaurant	1	0.08	0.08	
c) Convinience	6	0.003	0.18	
d) Parking	250	0.002	0.5	
e) Management Office	4	0.02	0.08	

4.50 A.B.U. MASTER PLAN PROPOSALS FOR RECREATION FACILITIES (1980-1995)

4.51 SPORTS CENTRE AND UNIVERSITY PARK

This proposal would consist of the following five elements.

a) Convocation/Sports Stadium to accomodate 20,000 people, and to be used for hosting inter - Nigerian Universities Sports competition.

b) University Theatre to accomodate 1,000 people to be used for academic, cultural and entertainment purposes.

c) Swimming Complex to Olympic standards with covered seating for 4,000 spectators again for hosting purposes.

d) Sports complex to include a multi-purpose hall to accomodate 2,000 spectators and associated facilities like squash badminton, tennis courts, Soccer pitches, etc.

e) University Park and garden - to accomodate playgrounds, seats and other support facilities.

It would be worthwhile to construct 2km of read to connect the sport centre to the main road.

4.52 PARKS -

a) A park between Amina Hall and Suleiman hall.

b) A park in Agriculture Campus

c) Park in Extension of the Main Campus,

4.53 A new Senior Staff Club to be developed near the proposed Sports Centre.

4.54 THE STUDENT CENTRE - will be developed as part of the student residential area adjacent to the extension of the main campus. The Centre would be sited in close proximity to the university sports clinic and park, and could take advantage of recreational potential of the A.B.U. reservoir.

4.55 POST GRADUATE CENTRE- It is proposed that the Senior Staff Club should move Southwards to new premises as part of the special housing area for senior staff. The existing staff club could form a postgraduate centre (See Figure 4.17 - A.B.U. Master Plan).

4.56 REVIEW OF THE MASTER PLAN -

The proposed Student Centre is almost completed. The area between Amina and Suleiman halls, that was earmarked for park and shopping centre, is now bieng used for the construction of a new chapel, hence, there is no hope of a park coming up there. Apart from these two



FIG.4.17 ABU MASTERPLAN (1980-1995)
source: abu masterplan (1980)

developments nothing has been done so far as regards the master plan proposals for recreation facilities.

4.60 UPGRADING OF EXISTING FACILITIES.

Table 4.10 shows facilities that fall short of the suggested standards, Figure 3.25 which shows users responses as regards adequacy of existing facilites, also confirms the fact that these facilities fall short of users expectations, hence, the need to upgrade them to meet the requirements. Suggested improvement for such facilities are given below.

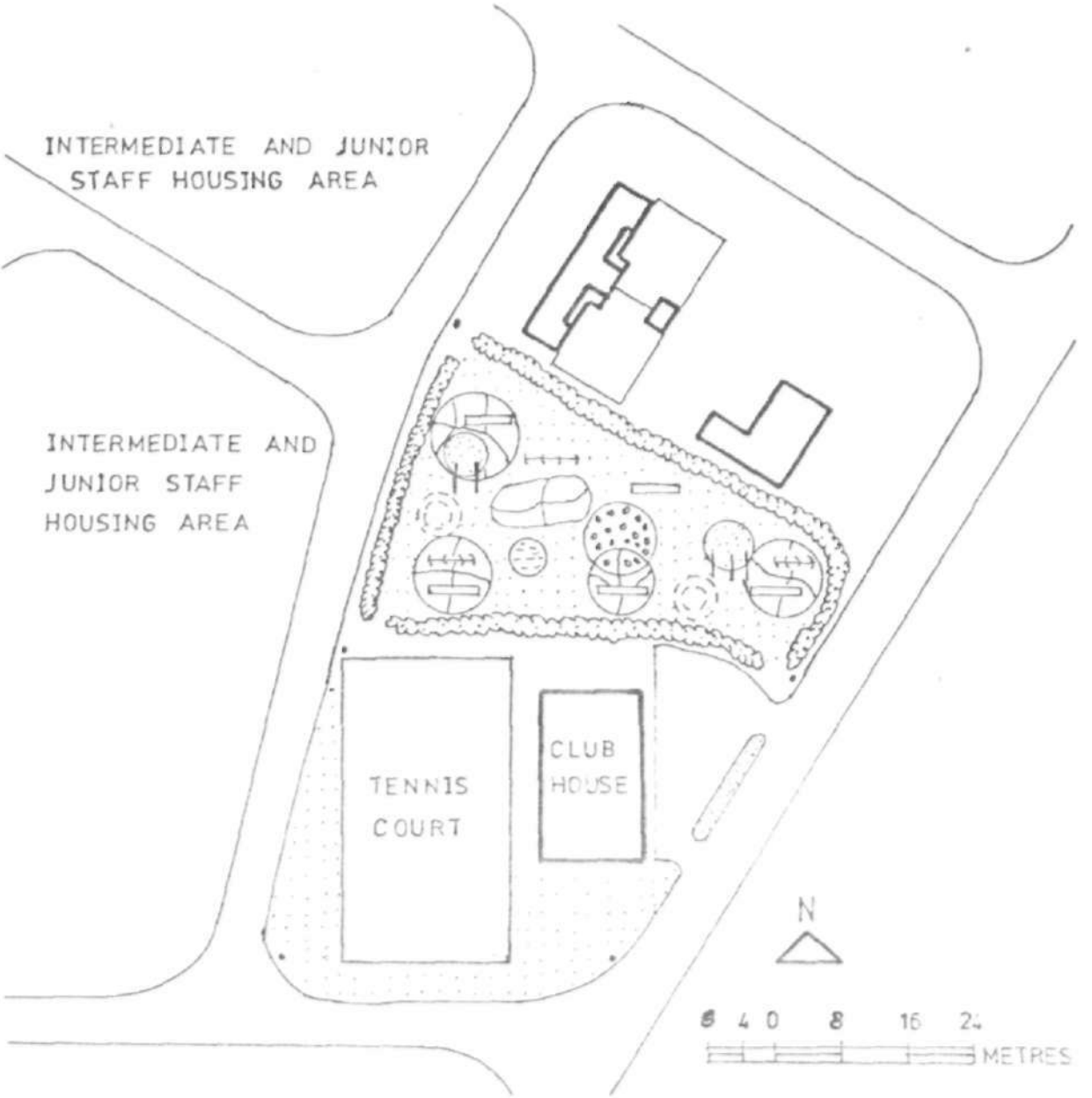
a) Student Centre - The new are near A.B.U. dam is almost completed. It is suggested that when this is completed it should be provided with equipments for discotheque, indoor games (like darts, monopoly, cards etc.) and equipments for exercising in addition to the bar and seats.

b) Students' Common Rooms, each students' hostel should have at least 3 common rooms of about (20 X 10)m^2 each. These should be equipped with indoor games, musical sets, instruments for exercising in addition to the seats and television sets.

c) Assembly hall and theatre - these have been proposed by the masterplan and have been integrated into the proposed central recreation area for A.B.U. (The two have been combined because they perform similar functions and can go together). See Figure 4.29.

d) Intermediate and Junior Staff Club - A new one is proposed in the Intermediate and Junior Staff quarter. It will house a tennis court, a bar, indoor games, and children's play ground. See Figure 4.18 for detailed design staff club.

e) Swimming Pool - a new one has been proposed by the Master plan, although based on present damand, the two existing swimming pools are adequate if only the one near Amina will be available to users, there is no need for another swimming pool. However, the proposed one has been integrated into the proposed Central recreation area for A.B.U. and it can be developed when the demand increases or for the purpose of competition. It is suggested that the swimming pool near Amina Hall be left open for users, life guards can be employed to train and keep eye on the users instead of keeping it locked. See Figure 4.29 for the proposed swimming pool.



LEGEND

MOCK ROCK	WATER FOUNTAIN	TREE
SLIDES	MERRI-GO-ROUND	LAWN
SAND PIT	MINI CARS AREA	SEAT
SWINGS	FLOWER HEDGES	STREET LIGHT

FIG. 4.18 PROPOSED I&J STAFF CLUB

(PART OF PROPOSED I&J STAFF QUARTERS)

f) Outdoor Sports Ground - The Master plan proposed a stadium this has been integrated into the proposed central recreation area for A.B.U. (See figure 4.27)

g) Open Spaces Within Staff Residential Area - This should be landscapped and provided with playgrounds for children. See Figure 4.32 for detailed design of playground.

h) Open Spaces within Students' residential area - this should also be landscapped and provided with seats, tennis courts and so on. (See Figure 4.19 for detailed design of organized open space within students' residential area. This provides the students' with after work relaxation place.

i) Organized open space within Academic area - The open spaces within the academic area should also be landscapped and provided with seats, lighting, newsstand and Snack bar. This offers the staff and students place for break time relaxation. See Figure 4.20 for detailed design of organized open space within, academic area.

j) Open Space within the central core - the love garden should be given good landscape treatment, so that people can continue using it for relaxation. It should be provided with trees, seats, kiosk and lighting.

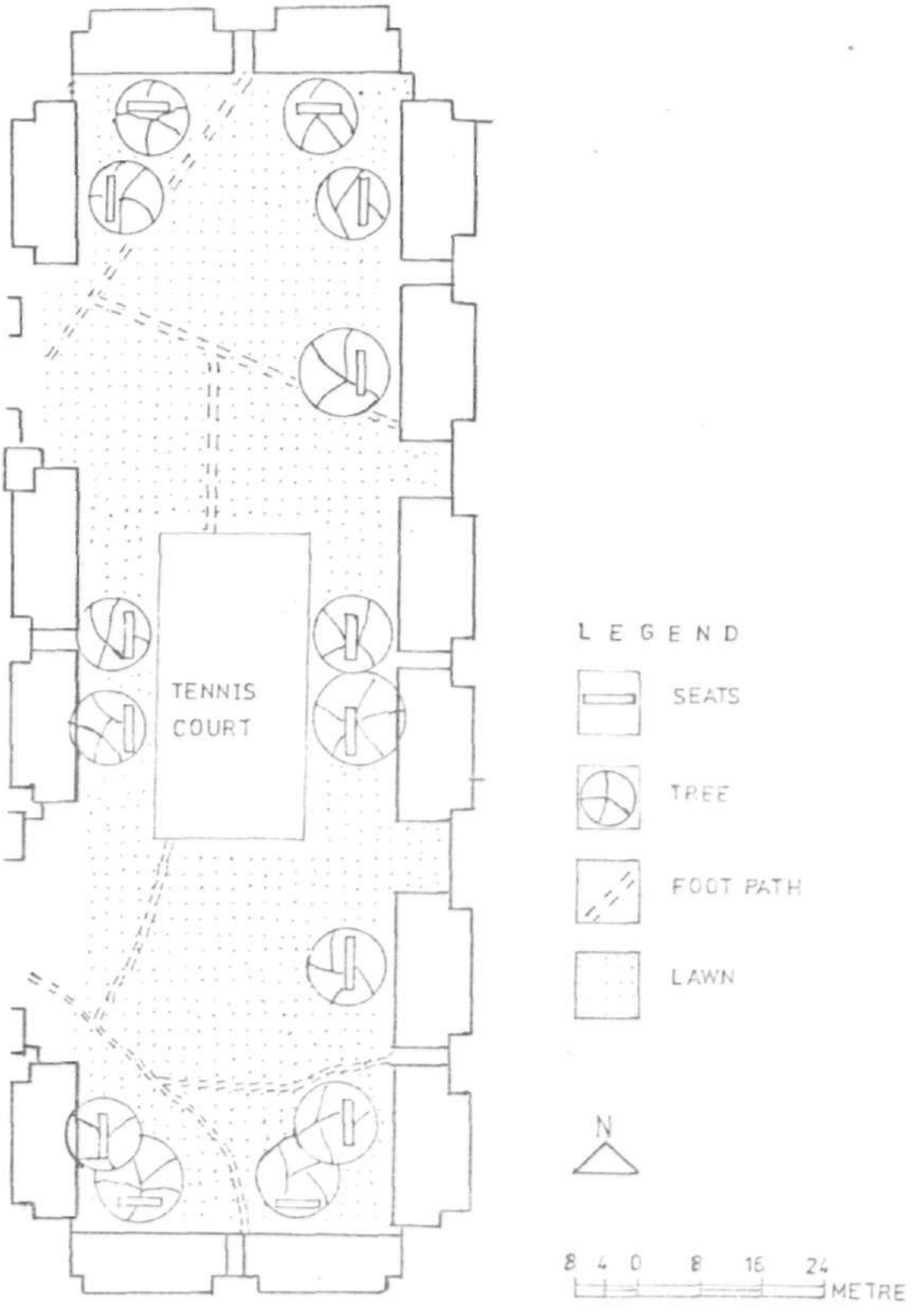


FIG. 4.19 ORGANIZED OPEN SPACE:
students residential area
(Part of akenzua hall abu)

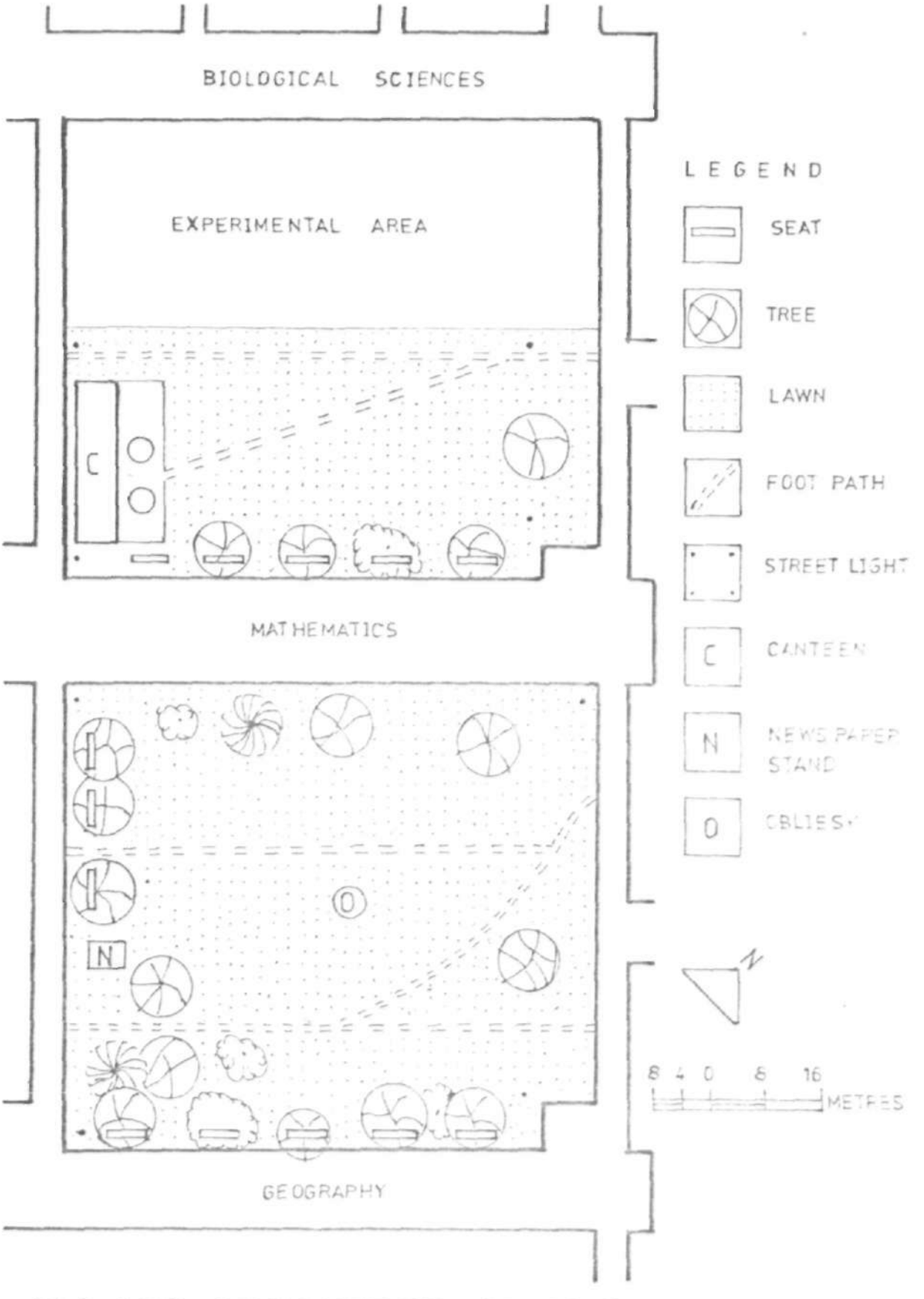


FIG.4.20 ORGANIZED OPEN SPACE:
academic area (part of faculty of science abu)

4.70 LAYOUT DESIGN OF A CENTRAL RECREATION AREA FOR A.B.U. MAIN CAMPUS

4.71 SITE SELECTION AND EVELUATION OF ALTERNATIVE SITES -

Figure 4.21 shows the location of alternative sites, for central recreation area, in relation to the rest of the campus for the selection of a suitable site for locating the central recreation facilities, the following criteria have been used :-

a) Availability of ample space for development and future expansion

b) Accessibility to various users at different locations.

c) Relationships with places of work and living

d) Conformity with the University Master plan.

e) Presence of river, lake, or rock - outcrops which beautify the environment.

Two sites have been considered for location of central recreation facilities these are the Ahmadu Bello University Farm and the A.B.U. dam area. The two sites were considered because of availability of space for development and future expansion.

a) Site A - The A.B.U. Farm



FIG. 4.21 LOCATION OF ALTERNATIVE SITES: CENTRAL RECREATION AREA

I) Merits -

1) The area is sometimes used for picnicking by some people.

2) It is located near residential areas C and G, the Institute of agricultural research and the new Teaching Hospital.

3) The Bomo reservoir there provides a good recreation environment.

4) It is connected to the Sokoto Zaria highway by a road which will be widened in due course.

II Demerits

1) The area has been earmarked for agricultural use, therefore, it may not be worthwhile to convert it to recreation area. The main activities here at present are farming and grazing which are not recreational.

2) The location imposes unnecessary walking distance on pedestrians especially the students.

3) The distance of this area from all the existing recreation areas is great.

b) Site B - A.B.U. Dam area.

I) Merits -

1) The lake ensures a beautiful recreation environment.

2) The Kufena Hills can also be viewed from this place.

3) Close proximity to other university elements - the proposed students housing area, Senior Staff housing area, I&J Staff quarters, Faculty of education, and Faculty of Arts and Social Sciences.

4) Agreement with campus
Master plan - the area has been earmarked for University Sports Centre and park, in the master plan.

5) It is connected to the major campus read by an untarred read which will be upgraded.

6) Availability of land for development and future expansion

7) Relationship with nearby structure - The new students centre located on the site provide an attraction force for other recreation facilities. Furthermore, the area is already being used for picnicking and swimming by some people.

II Demerits -

1) The use of the water in the reservoir for water recreation may bring health hazards on the users because

of the viruses it contained, however, the water can be treated and made safe for recreational activities.

The A.B.U. Dam area has been considered the most appropriate and suitable site, because of its recreation resources, for the fact that it has already been proposed for recreation in the master plan, and also for fact that most users want facilitie to be sited near physical feature. See figure 4.22 for users responses as regards the location of facilities required.

4.72 LAYOUT DESIGN -

An area of 60 hectares has been carved out for location of central recreation facilities to meet the growing demand of the campus community. The types of facilities provided are based on the results of the survey carried out.

a) Swimming Complex to Olympic Standard (50 X 20)m^2 = 100m^2 with covered seating for 1,000 spectators for hosting purposes. This should be developed only when the swimming pools near Amina Hall, and in Senior Staff Club fail to meet the demand of the users. Area is 0.5ha.

b) Sports Complex - to include a multi-purpose hall to accomodate 2,000 spectators and facilities like indoor hockey, handball, five, basket ball, badminton, indoor

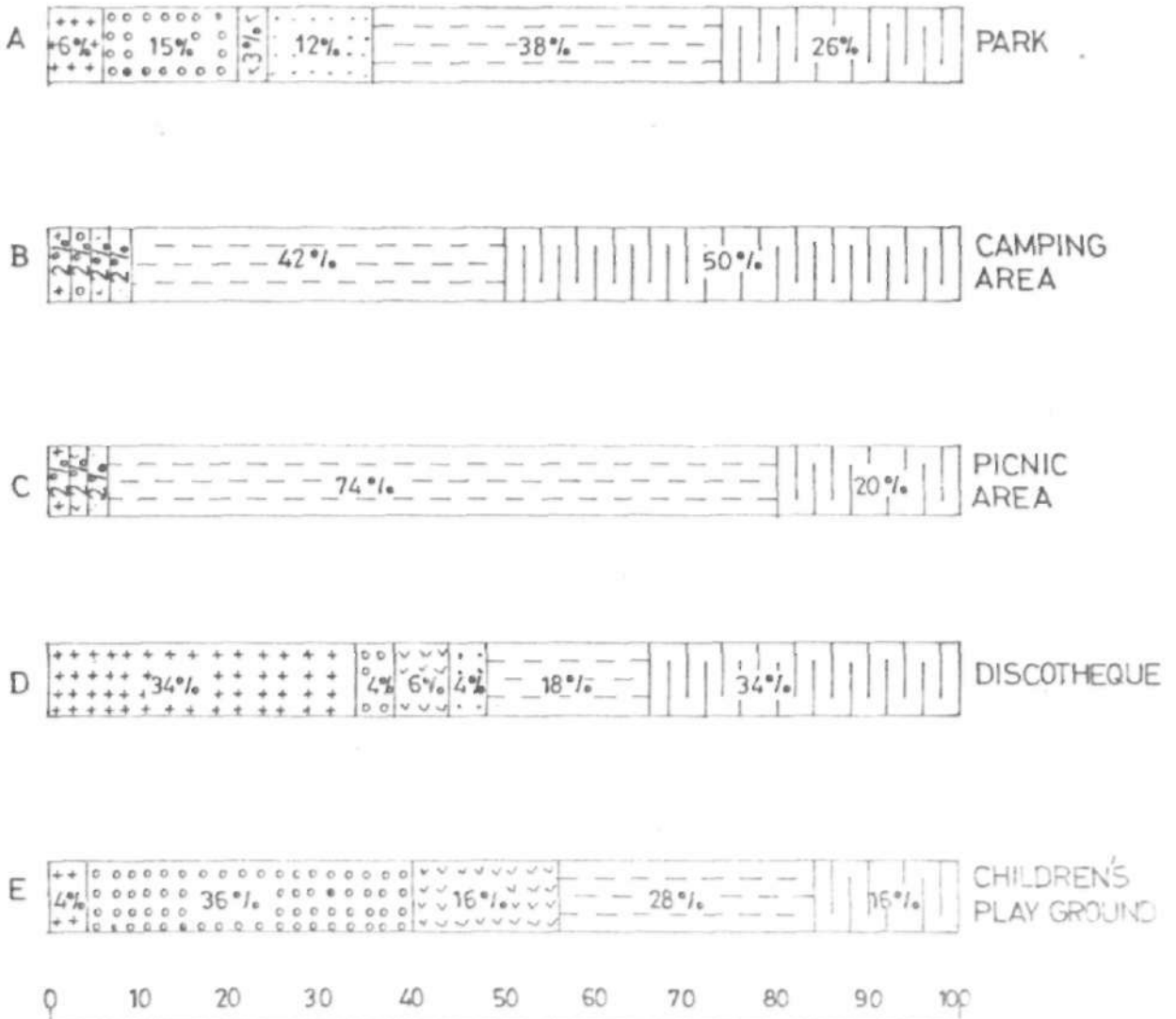


FIG.4.22 REQUIREMENTS LOCATION – A.B.U (MAIN CAMPUS).

tennis and gynasium facilities. It is located adjacent to the swimming complex, so that they can share changing facilities together - Area is 2.0 ha

These two facilities are housed together in the same building, and the building has been aligned in such a way that the sun does not disturb the users at any time of the day.

c) Stadium - to include football pitch, hockey, cricket athletic field convenience and snack bar and to accomodate about 20,000 people for hosting purposes. The field has been aligned in North-South direction so that the sun does not disturb the users. The Stadium can also be used for convocation.
Area is 8ha.

d) Amphitheatre - to accomodate 1,000 people and it can be used for academic, social and cultural recreation. It is also aligned to the best advantage of the users. It accomodates changing room, toilet and performance stage. The area coverage is 3ha.

e) Picnic Site - Each picnic site accomodates about eight picnic units, areas for tables, seats, water fountain, trash can children's play ground parking and trees have been used to provide shade for users. Each

picnic unit is arranged in such a way that each group can have a view of the reservoir, about 20.40 metres buffer zone is allowed between the picnic unit and the water. The picnic sites on the western and southern parts of the reservoir are not provided with trees, instead clamping holes are provided and the users are expected to fix their umbrellas (4 - 8m) to them to provide shade. This provides variety and also limit the pollution of the water. Figure 4.23 shows detailed design of a picnic site.

f) Camping Site - The camping units are arranged in a way that each group will have a view of the water. The camping area include area for Tent Pads with size ranging from (2 X 2)m - (3X7)m. fire place - 0 3m, Table (0.65 X 2)m parking area, a trash can 0.35m diameter and a drinking fountain. See Figure 4.2', for detail design of a camping area. The camping area is also provided with trees.

g) Boating and Swimming - the activities are concentrated at a point which forms the activity centre of the area because of the presence of a landmark. For boating boats are provided, while for swimming diving boards are provided, these activities should take off after the water has been treated and declared safe.

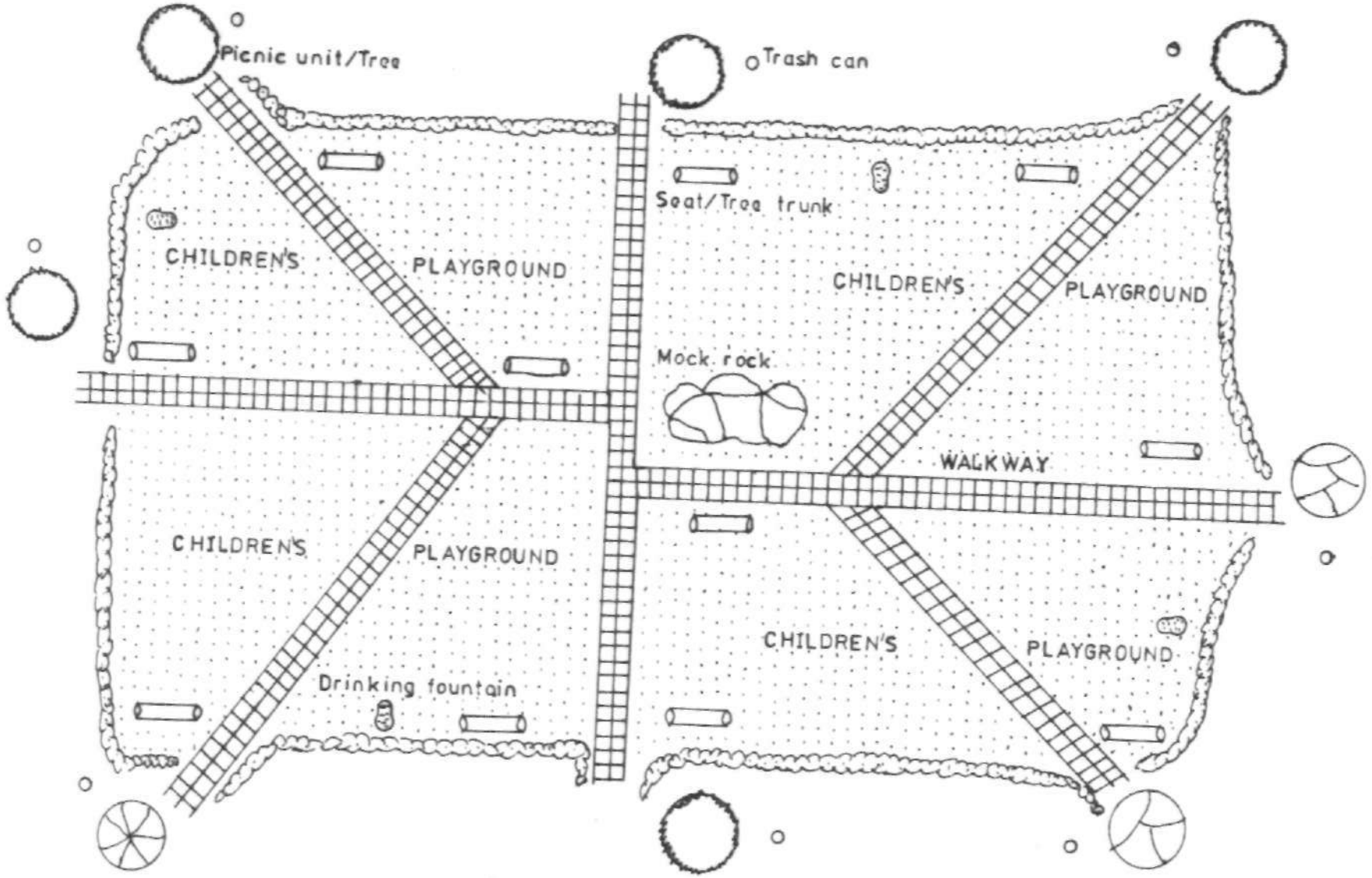


FIG. 4.23 DETAIL DESIGN OF PICNIC SITE

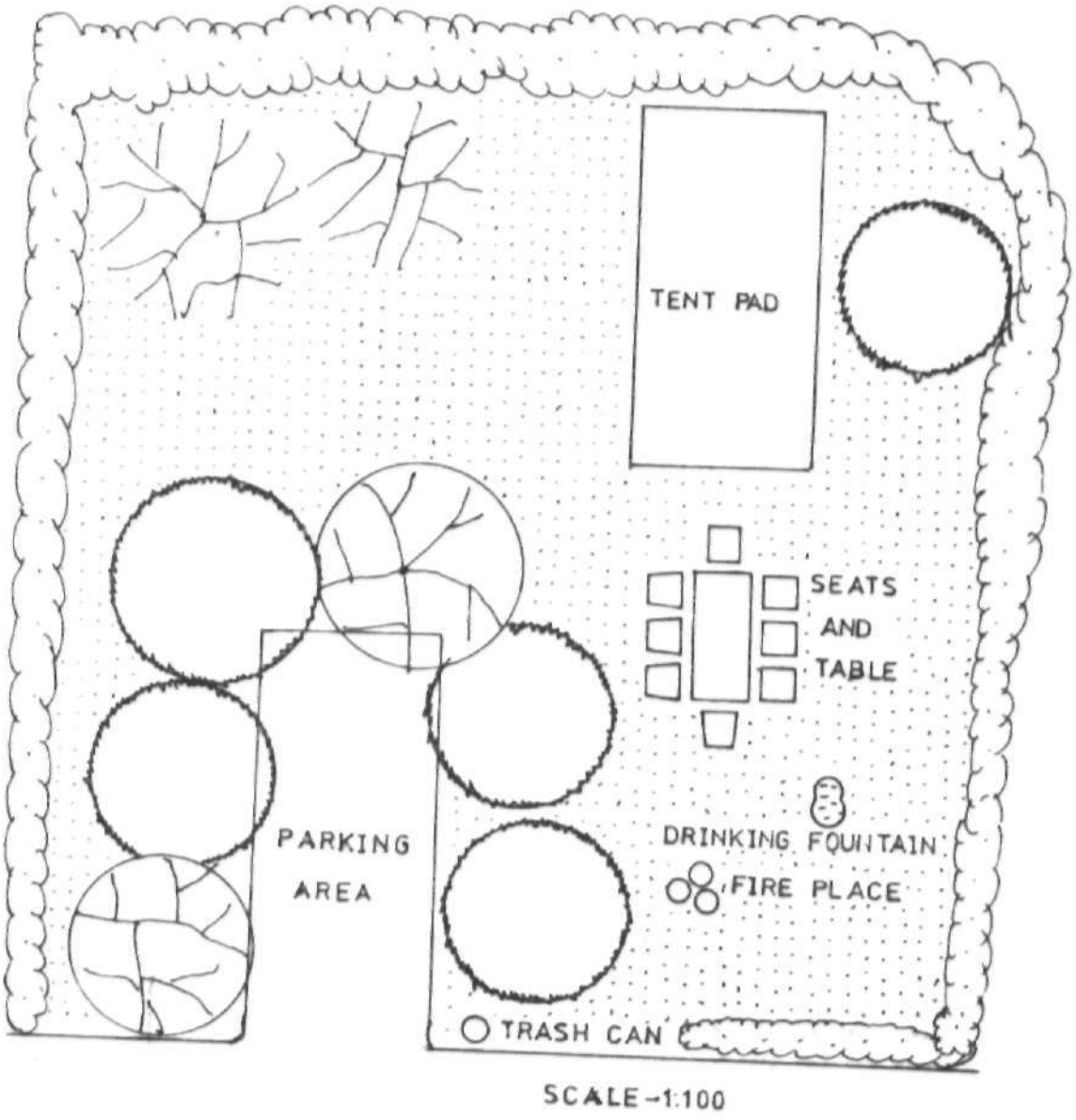


FIG.4.24 Detail design of camping unit

h) Landscapping - The major roads pedestrian walkways and activity areas are landscapped to provide shade for the users. Trees to be used for landscapping include ficus Bengalensis (ficus tree), Gmelina (Melina tree), Mangifera Indica (Mango), Enterolobium sannan, (raintree). These are trees that can grow well in the Guinea Savanna region and provide shade through out the whole year. For hedges plants like Dodonea viscosa (Jos pivot immune to cattle and drought resistant), Euphorbia species (anti snake, immune to catt cattle and snake) and Duranta Plumevii (Duranta - Evergreen hedge) can be used because they grow well in guinea savanna region.

i) Internal bus service system - Since most users are pedestrians (See Figure 4.25) and the area is not located within easy walking distance an internal bus service system has been suggested. (See Figure 4.25 for the suggested bus routes.

The plan is designed in a way that all facilities are accessible to users wither by roads or footpaths. Furthermore, the facilities have been oriented such that excessive daytime sun is avoided.

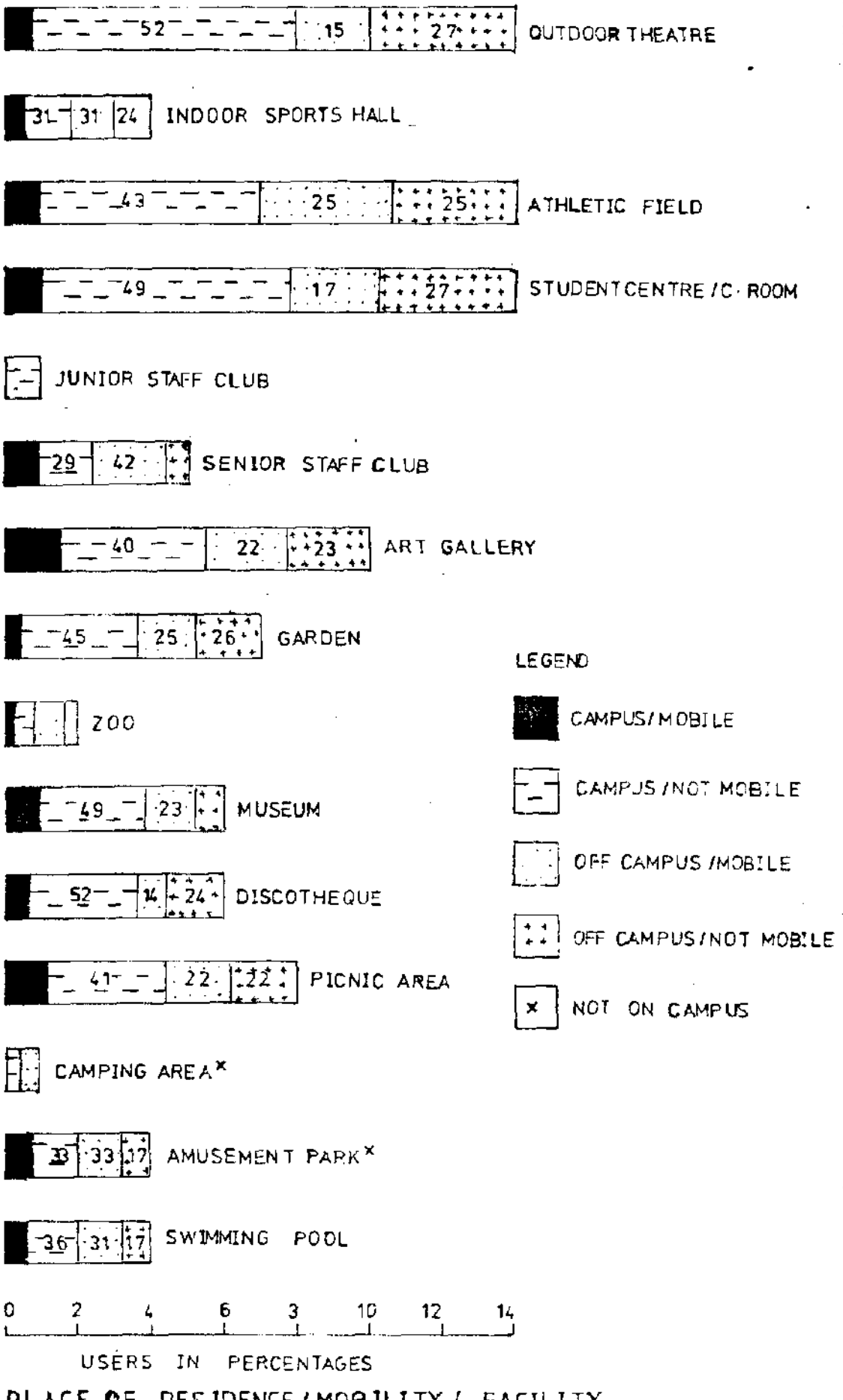


FIG.4.25 PLACE OF RESIDENCE/MOBILITY/ FACILITY

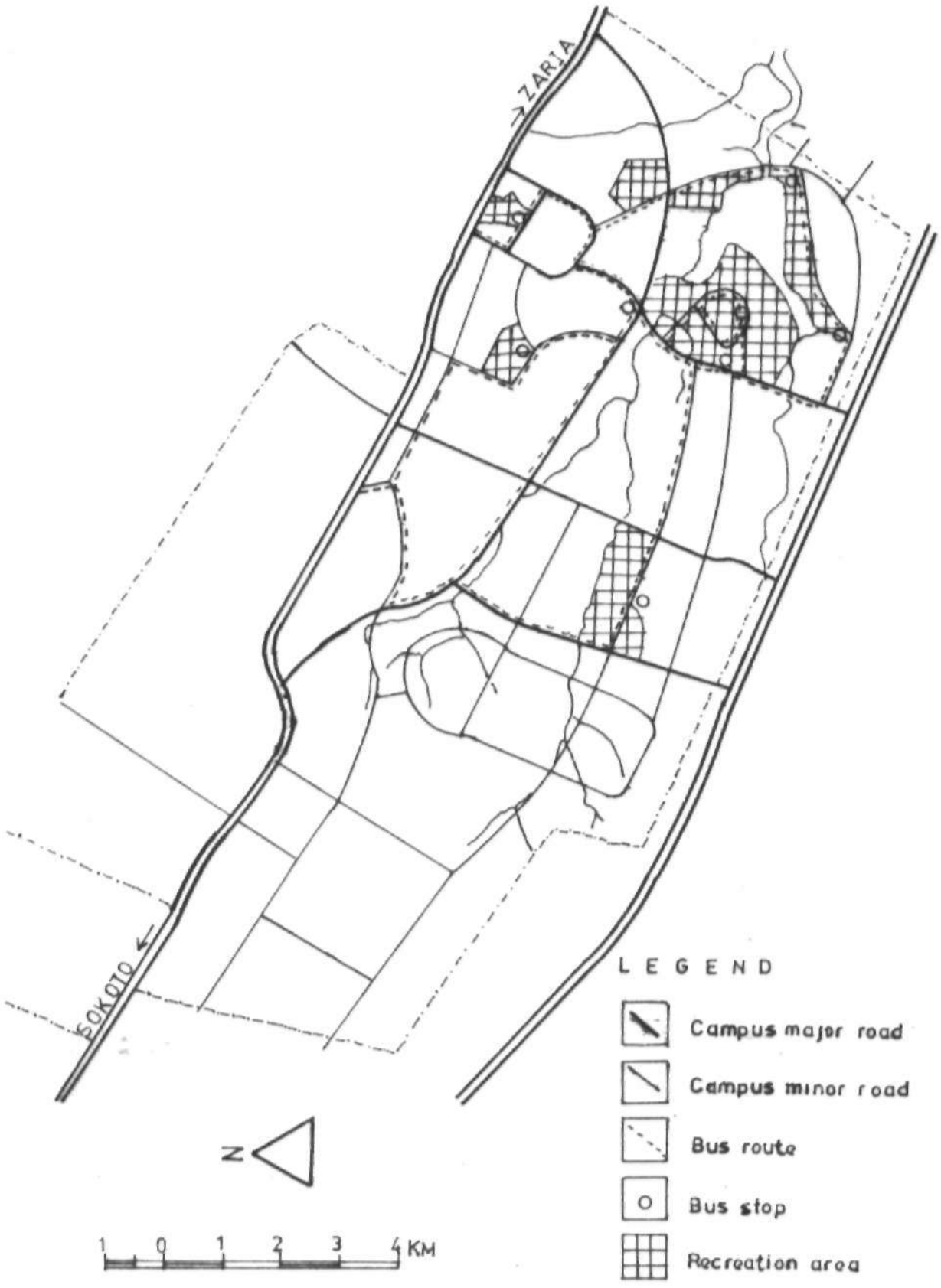


FIG.4.26 SUGGESTED BUS ROUTES

4.73 DESIGN CONCEPTS - In siting of the recreational facilities two design concepts were evolved. In the first concept parking is provided at specific places which are connected to the activity areas by walkways. The second concept allows access roads into the activity areas and parking spaces are provided close to each activity area. See Figures 4.27 and 4.28 for alternative concepts.

The second concept has been adopted because most people will want to park near the facilities required for security reasons and for the fact that the area is too large and it will not be easy to park in one place and trek such long distance. Figure 4.29 shows detail design of the central recreation area, while figure 4.30 shows the relationship between each activity area and the rest of the campus.

4.74 DESIGN OF A NEIGHBOURHOOD PARK -

Another area along the Kubani valley is used for this purpose. The area has been proposed for sports and park in the Master plan and is also located close to the proposed students' housing in the extension of the main campus.

The proposed park will accomodate children's playground and Garden. An area of 3ha is used for this purpose The children's playground will accomodate seats, drinking fountain, climbing walls, area for cycling, area for driving min-cars, dwarf walls, mock rocks, old boats sand pits, slides and swings. It provides the children with a play

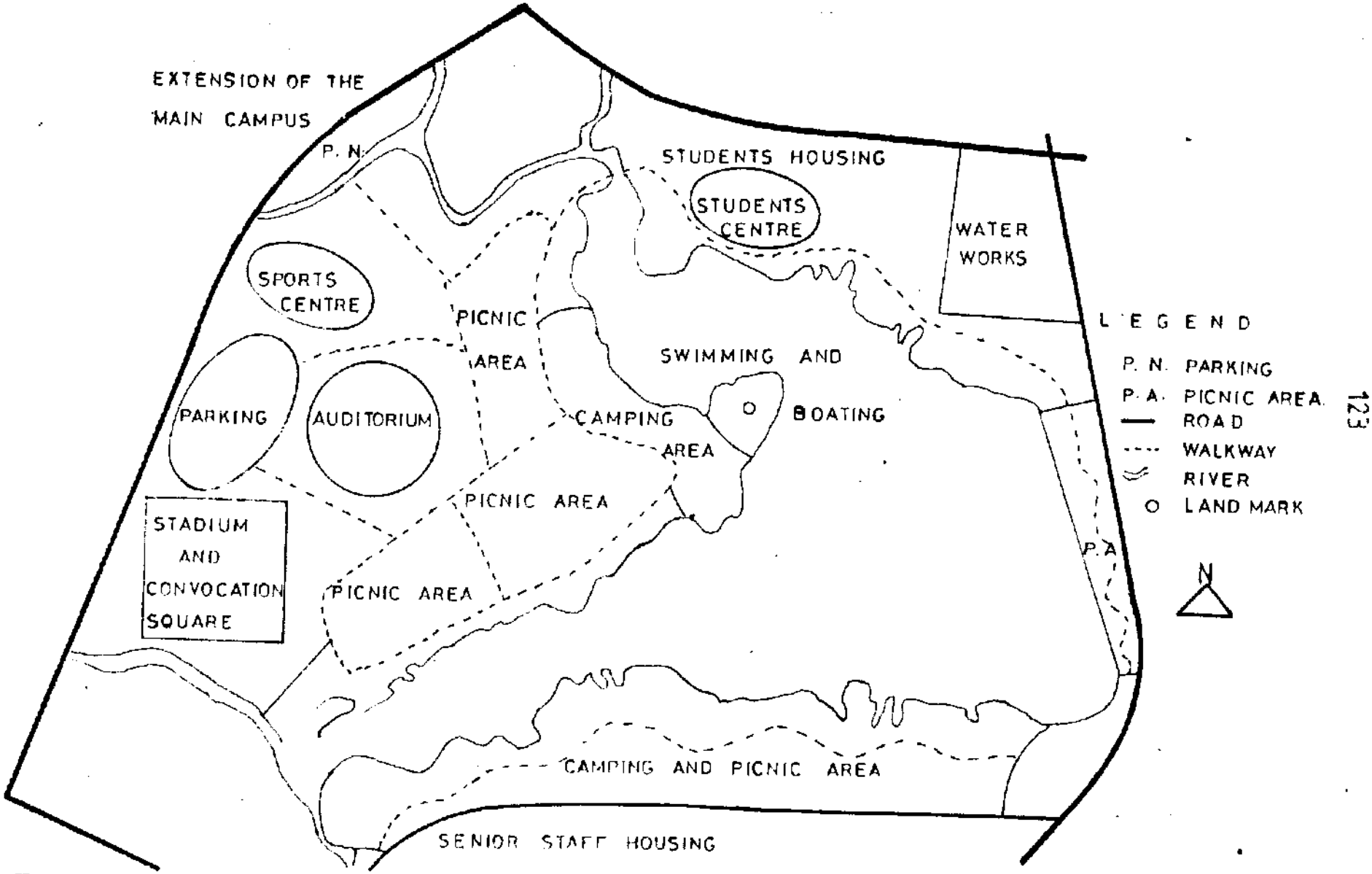


FIG.4.27 WALKWAYS TO ACTIVITY AREAS- ALTERNATIVE CONCEPT A



FIG.4.28 ACCESS ROAD TO ACTIVITY AREAS – ALTERNATIVE CONCEPT B

area after school. The Garden will accomodate seats, kiosks, and water fountain.

Trees and hedges will also be used for landscapping. See Figure 4.31 for the layout plan of the Neighbourhood park and Figure 4.32 for detail design.

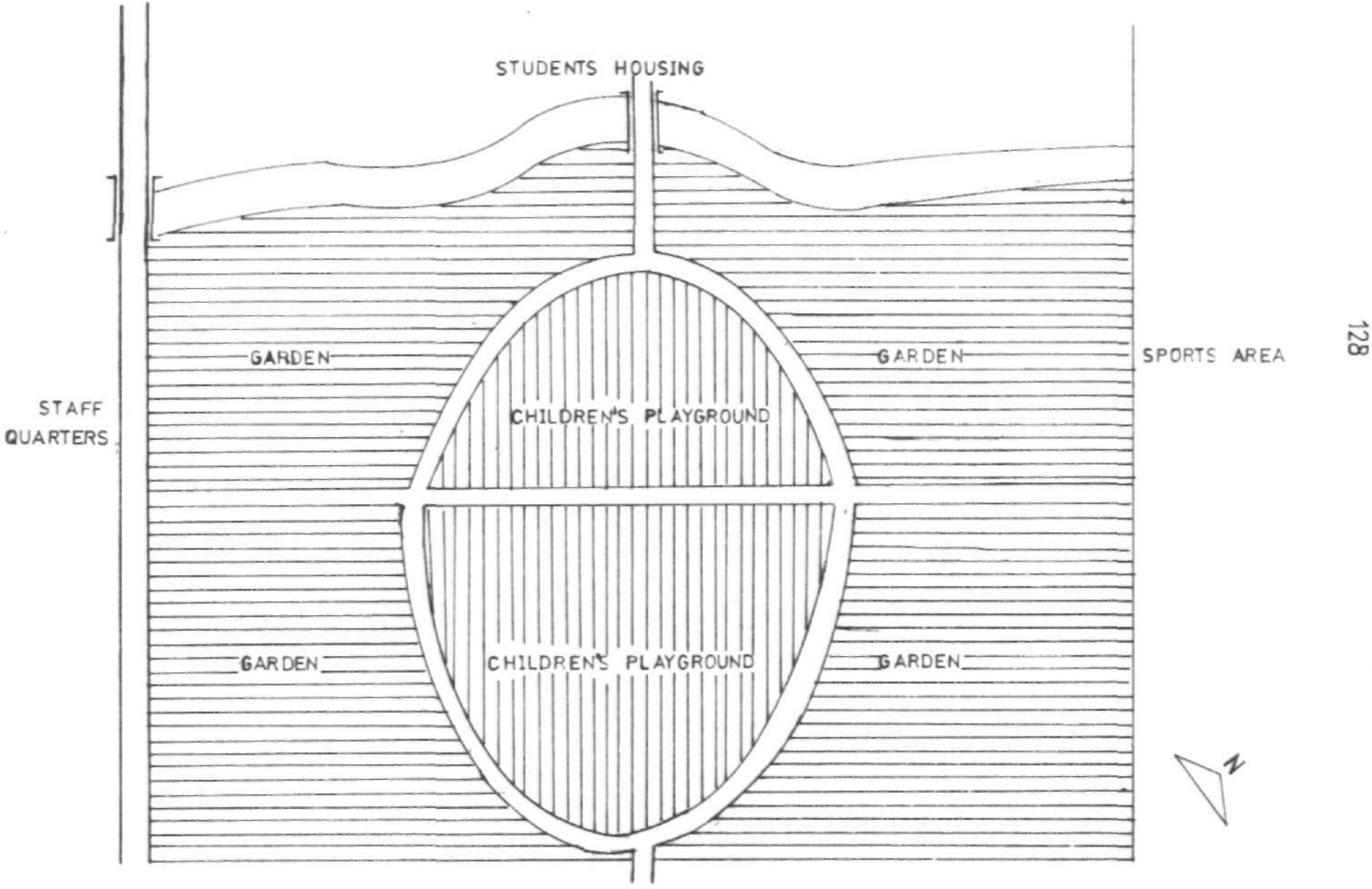


FIG.4.31 LAYOUT PLAN: Neighbourhood park

CHARPTER FIVE

5.00 POLICIES FOR IMPLEMENTATION AND CONCLUSIONS

5.10 MANAGEMENT

Management is defined as the "judicious use of means to accomplish and end; skillful treatment"[1]. This implies that learned skills are applied to situations in such a way as to bring about an intended condition. Management of a recreation area will involve planning, organising, formulating implementation policies, coordination and control with the aim of accomplishing a desired end. In the management of a recreation area, the end product is user satisfaction. The skillful treatment used to obtain this end in recreation area consists of techniques in planning, maintenance, and protection coupled with proper administration. The judicious use of each of these techniques must be dependent upon the desired end product. In this case the desired end product is user satisfaction, therefore, users' interest in the managed area must be analyzed.

The elements of management, therefore involved planning techniques, maintenance, protection and administration. The planning techniques will encompass the layout design of the area and the provision of support utilities, services and facilities, and how such design has been able

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1. Douglass, W.R. (1977) Forect Recreation p. 280.

to satisfy users' demand, these elements of planning have been taken care of in the previous chapters, the recreation areas for A.B.U. Main Campus are designed in a way that the users satidfaction is ensured, the designs have taken care of users at various locations.

Management also involves protection of the sites against water and air pollution. And the physical beauty of the area must be maintained and prevented from destruction and aesthetic pollution. Furthermore, the safety of the users and their properties should also be ensured.

Maintenance involves updating of equipment and services to meet users demand and preferences. Maintenance also involves financing, since money is required to update equipment and services.

An effective and efficient administrative set up would ensure proper balance between recreational demand and supply; site protection, safety of users and their properties; site maintenance; and financial management.

5.11 IMPLEMENTATION AUTHORITY

A recreation planning committee should be set up to work in collaboration with the estate department and physical planning and implementation committee. The choice of the committee members should allow effective feedback mechanism.

That is to say some members of the committee should come from estate department and some from the physical planning and implementation committee, in this way the two way communication that is required for efficient functioning will be ensured.

There is a landscapping committee in existence. The functions of this committee include the following :-

1) To advise the Director of works and the Director of university health services (and through them the development committee, minor works committee, or physical planning and implementation committee on matters with in their respective functions) the landscapping of the campuses at samaru and maintenance of open spaces on these campuses;

2) To advise on ways and means of monetary compliance with its recommendations in order to ascertain the extent to which they are implemented.

3) To advise the Chief Security officer or other appropriate authority on serious cases of non-compliance with environmental regulations on the campuses.

4) To submit on annual report to the Vice-Chancellor.

The Membership of this committee is as follows:-

1) Faculty of Environmental Design - a planner and an architect - to advise the committee on matters pertaining to their areas of specialization.

2) Estate Department - Chief Campus planner and Estate Civil Engineer - to supply the labour force that is required for physical develc ent and maintanance of the area concerne.

3) Biological Sciences; and

4) Department of Plant Science to give advise on type of plants required for landscapping and their maintenance.

5) University Health Services - Preventive Department - Collection of refu e and garbage to ensure Cl an and healthy environment.

6) Department of Water Resources and Environmental Engineering - to advise the committee on matters pertaining to environmental protection.

7) Security Office

8) Students' affairs - to provide labour force for physical development and maintenance.

9) Bursary - to advise and give procedures for obtaining funds.

10) Registry - A representative of the registrar - to advise and to ensure that the Committee abides by the University regulations.

11) A Secretary from development Committee

12) Division of Agricultural Colleges - advise.

This committee should be converted into recreation planning committee, whose functions in addition to those mentioned earlier on should encompass development and maintenance, of recreation areas. Members should also be drawn from Faculty of Education in addition to existing ones.

This committee should work in collaboration with existing Estate Department and Physical Planning and Implementation Committee. Members of the Physical Planning and Implementation Committee include the Vice-Chancellor, Director of Works, Chief Campus Planner, Registrar, Bursar, Development Secretary and Members from Institute of Education, Civil Engineering Department, Electrical Engineering Department, School of Basis Studies, University Health Services, Department of Architecture, Department of Building, Department of Urban and Regional Planning, Division of Agricultural Colleges, Faculty of Law, Department of History and Development Office.

A look through the lists reveals overlaps of membership hence a two way communication between the committees is ensured.

5.12 ADMINISTRATION

An office should be set up to take care of administration of the recreation areas. The Senior Officer in this case should be a member of both Recreation Planning Committee and Physical Planning and Implementation Committee.

The functions of this office will include :-

a) To ensure a proper balance between supply and demand, this can be achieved by carrying out on-site users surveys from time to time, this will allow the office to assess existing demand and to adjust supply to meet such demand. It will also allow the authority to measure the degree of satisfaction with the existing facilities and to make improvements where necessary.

b. Protection of sites, users and their properties, this can be achieved by keeping close watch on the users as much as possible.

5.13 MAINTENANCE -

The administrative office should ensure that serviees, utilities and facilities provided on the sites are in proper conditions. To know the conditions of things it will be necessary to keep constant watch on them and to interview users, so as to know what is wrong and where. Cost of maintenance can be reduced by using cheap and durable materials.

The office should ensure that the capital that is pumped in is used for development and maintenance of the sites.

The administrative office should employ the services of landscape architect, planner, administrator, accountant or economist, coaches, for different activities, life guards, cleaners, gardeners and security officers.

5.14 FINANCING THE DEVELOPMENT OF RECREATION AREAS -

The money that is required for initial take off will be provided by the National Universities Commission (N.U.C.) However, funds can also be raised from the users through

a) entrace fees collected from theatre, swimming pool and stadium.

b) Rental fees - from hiring of items like umbrellas, boats, snack bars, and restaurants, the auditorium can also be hired for cultural activities or film shows.

c) Sale revenues - from sales of items like drinks and snacks. This can be possible if snack bars and restaurants are operated by the authority itself.

d) Users can be encouraged to form various clubs like boating and swimming clubs, in this way members can raise funds among themselves.

Although these can also be sources of funds for maintenance, care should be taken not to over-commercialise the facilities since such action will discourage users. The fees to be introduced should be based on financial capacity of various users.

5.20 CONCLUSIONS

The growing awareness for recreation, among educated Nigerians, coupled with the energetic nature of the campus population and their rising income, call for proper recreation planning.

The existing situations on Nigerian campuses revealed planlessness as the major problem facing recreation development. Facilities are provided without considering users demand and preferences as regards location types and time - tabling of such facilites. The N.U.C. provides standards guide for University planning, it does not restrict provision and space allocations for recreation facilities, hence, it is left for the university authorities to introduce into the standard the human elements that is required for its success.

This work has covered the revision of types and space allocations for recreation facilities based on existing situations, the N.U.C. standards, and users demands and preferences. Principles and concepts are evolved to guide the locations and planning of recreation facilities. These principles and concepts have been developed on the basis of existing literature, existing situations and accessibility of facilities to different users at various locations.

Recreation refreshes the mind and body and prepares people for economically and intellectually gainful work

so that they can make their own contributions to the success of the community within which they live and the society of large. Recreation is necessary to avoid breakdowns and mi minimise tensions for both staff and students considering the load of work done by these people. Hence, the need to plan for recreation facilities on our campuses.

Planning will prevent a hit- and - miss system of recr recreation that could put too much of the wrong thing in one place and not enough of anything in another. Haphazard developments based on available funds and sudden interests will be avoided by a well developed recreation plan. By knowing what, where, when and how much to develop the Univerdity authorities will be in better positions to undertake successful recrsation development ventures.

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APPENDIX I

PLEASE TICK THE FOLLOWING AS APPROPRIATE

1) Name of University

a) A.B.U. _____

b) Uni. Ben. _____

c) Uni. Jos. _____

d) B.U.K. _____

e) Unife _____

f) Unilorin _____

g) Uni. Sokoto _____

h) F.U.T. Bauchi _____

2) Occupation

a) Senior Staff _____

b) Intermediate and Junior Staff _____

c) Student _____

3) Age of the Respondent

a) 15 - 20 years _____

b) 21 - 25 years _____

c) 26 - 30 years _____

d) 31 - 35 years _____

e) 36 and above _____

4) Sex

a) Male _____

b) Female _____

5) Marital Status

a) Single _____

b) Married _____

c) Divorced _____

d) Widowed _____

6) Number of Children

a) None _____

b) 1 - 3 _____

c) 4 - 6 _____

d) above 6 _____

7) Which of these do you possess ?

a) Car _____

b) Motor Cycle/Scooter _____

c) Bicycle _____

d) None of the above _____

8) Where do you spend your leisure time?

a) Outdoor within the Campus _____

b) Indoor within the Campus _____

c) Outdoor Outside the Campus _____

d) Indoor outside the Campus _____

9. What type of recreation activities do you engage in?

a) Strolling _____

b) Dancing _____

c) Playing cards, darts, etc. _____

d) Picnicking _____

e) Sight - Seeing _____

f) Sports _____

g) Film Shows/Drama _____

h) Visiting Parks _____

i) Visiting Club Houses _____

j) Camping _____

k) Swimming _____

l) Others (specify _____

10. How often do you use these facilities?

Facilities	Frequency of Usage				
	a) Daily	b) One a week	c) only at week ends	Occassionally	Not at all
1) Garden/Park					
2) Athletic field					
3) Swimming Pool					
4) Common Room					
5) Students Centre					
6) Staff Club					
7) Zoo					
8) Theatre					
9) Indoor Sports Hall					
10) Picnic area					
11) Camping area					
12) Discotheque					
13) Others (specify)					

11) Name other recreation facilities within the university that you know of.

_____

_____

_____

12) Which of these facilities is/are inadequate

_____

_____

13) What improvements would you suggest for these inadequate facilities?

_____

_____

_____

_____

14) What the facilities do you want provided on the campus that are not there at present?

_____

_____

_____

_____

Thank you.

Salawu W.A.M. (Mrs).

APPENDIX II

PLEASE TICK THE FOLLOWING AS APPROPRIATE

1. Name of University

   a) A.B.U. _____
   b) Unife _____
   c) Unijos _____
   d) Unilorin _____
   e)

2. Occupation/Department

   a) Staff - Rank ----------
      Department ----------
   b) Student - Year ----------
      Department ----------

3. Age of the Respondent

   15 - 20 years _____
   21 - 25 years _____
   26 - 30 years _____
   31 - 35 years _____
   36 - and above _____

4. Sex

   Male _____
   Female _____

5. Marital Status

   a) Single _____
   b) Married _____
   c) Divorced _____
   d) Widowed _____

6. Number of Children

a) None _____

b) 1 - 3 _____

c) 4 - 6 _____

d) 6 and above _____

7. Religion

a) Christianity _____

b) Islam _____

c) Others (Specify _____

8. Place of Residence

a) Campus _____

b) Off Campus _____

9. Which of these do you possess:

a) Car _____

b) Motor Cycle/Scooter _____

c) Bicycle _____

d) None of the above _____

10. Types of facilities, where provided and level of satisfaction.

	Where Provided		Frequency of Usage								Suggestions				Location				
	C.C.	N.O.C	O.	T.W.	O.W	T.M.	O.M	O.Y	T.Y	N.A	S.I.P	S.N.P	A.	I.A	S. .	S.R.A	A.A	C.C.	P.F.
1. Swimming Pool																			
2. Amusement Area																			
3. Camping Area																			
4. Picnic Area																			
5. Distheque																			
6. Museum																			
7. Zoo																			
8. Garden/ Park																			
9. Art Gallery																			
10. Senior Staff Club																			
11. Junior Staff Club																			
12. Student Centre																			
13. Athletic Athletic Fields																			
14. Indoor Sports Hall																			
15. Outdoor Theatre																			
16. Games Room																			
17. Others (Specify																			

NOTE TO QUESTION (10)

1) Where Provided:

O.C. = On the Campus

N.O.C. = Not on the Campus

2) Frequency of Usage:

D = Daily

T.W. = Twice a Week

O.W. = Onee a Week

T.M. = Twice a Month

O.M. = Once a Month

T.Y. = Twice a Year

O.Y. = Once a Year

N.A. = Not at all

3) Suggestion/Level of Satisfaction:

S.H.P. = Should be provided on the Campus

S.B.P. = Should not be provided on the Campus

A = Facilities are Adequate

I.A. = Facilities are Inadequate

4) Location of existing facilities and for suggested facilities:

S.H.P = Students Hall of Residence

S.R.A. = Staff Residential Area

A.A. = Academic Area

C.C. = Central [illegible] (Administration)

P.R. = Near Physical Features like Water body, rock outcrops, etc.

11) If you use facilities provided outside the campus, give reasons for using them.

a) Facilities are not provided on the campus ----------

b) Facilities are provided near of residence ----------

c) Other reasons (Specify) ----------

---

12) If there are facilities that you do not use give reasons.

a) No time ——————————

b) Facilities not near place of residence ——————————

c) Facilities not near place of work ——————————

d) Facilities not provided ——————————

e) Other reasons (specify) ——————————

——————————

13) If there are facilities provided that you do not want give reasons.

a) Nobody uses them ——————————

b) Not suitable to Nigeria conditions ——————————

c) They generate noise ——————————

d) Too expensive for the University for maintain ——————————

e) Take up too much space ——————————

f) Other reasons (Specify ——————————

——————————

——————————

14) If facilities are inadequate/not satisfactory suggest in improvements

——————————

——————————

——————————

——————————

Thank you.

Salawu W.A.M. (Mrs).

APPENDIX III

Detail Studies by Observations and Interviews -

1) The types existing facilities

2) The location of the existing facilities in relation to other campus elements.

3) Spaces allocated to existing facilities

4) Accessibility to these facilities.

5) Attendance

6) State of maintenance of these facilities.

7) Adequacy of existing facilities

8) Other supporting facilities, utilities and services provided.