

PERCEIVED BENEFITS & LEVEL OF AWARENESS FOR WATER BASED RECREATION AT AWBA DAM, UNIVERSITY OF IBADAN, IBADAN, NIGERIA

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ABSTRACT

Water based recreation is rapidly attracting visitors annually due to cravings for alternative forms of nature based internationally. Nonetheless, Awba dam in the University of Ibadan has ecotourism potential which has not been fully developed and utilized. Thus, this study was designed to identify benefits accrued to water based recreation and the level of awareness for water based recreation at Awba dam , University of Ibadan. A total of 524 respondents were sampled through the administration of structured questionnaires to members of staff (academic/ non academic) and students of the University of Ibadan. The study was conducted by selecting 3 Faculties (30% of all the Faculties) in the University of Ibadan using simple random sampling method. The Faculties chosen, (Faculty of Science, Arts and Agriculture) was based on the population. In each of these Faculties selected, questionnaires were administered to 30% of the Departments and also to 30% of students and members of staff(academic/ non academic). A total of 524 questionnaires were designed and administered for this project so as to obtain information from members of staff (academic and non academic) and students of the University community. These administered questionnaire was used to elicit information on respondents` socio demographic characteristics ,level of awareness, social acceptability of ecotourism and the perceived benefits of ecotourism. Perceived benefit of ecotourism was measured on a 10-point scale with scores 25 – 38.0 rated as low and 39– 47 as high. Data obtained was analyzed using simple descriptive analysis(bar chart, pie chart) and Chi- square test at 0.05 level of significance.

The survey results indicated that (84.5%) of the respondents are aware of Awba dam. High percentage of the respondents, (87.6%) showed interest in visiting Awba dam if it becomes a water based recreational Centre. Also, 83.4% believe Awba dam would be beneficial when it is

developed into water based recreational Centre and 78.3% indicated willingness to pay for recreation at Awba dam. There was a significant association between membership status ($\chi^2=4.41$, $P=0.04$) (academic/non academic) and religion ($\chi^2= 6.91$, $P=0.03$) with awareness of ecotourism at Awba dam . There was also significant relationship with ecotourism potential awareness ($\chi^2=14.84$, $P=0.00$) and perceived benefits. From the results obtained from this study, it was perceived that people are interested in visiting Awba dam for recreational purpose. Upgrading Awba dam to a water based recreational centre would serve many purposes aside money- generating venture for the University at large.

Key words: Awba dam, water based tourism, recreation, benefit, awareness.

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INTRODUCTION

Conservation is the wise use of the earth's natural resources that ensures their continuing availability so that it may yield the greatest sustainable benefits to present generations while maintaining its potentials to meet the needs and aspirations of future generations. Furthermore, conservation embraces sustainable utilization, maintenance, preservation, and the enhancement of the natural environment. Many people today travel long distances to ease tension and maintain a healthy living through a change of environment devoid of all stress of life. (Ojewola, 2008).

Water based recreation is a form of sport, leisure, recreation and tourism(Miller, 1993). It has become an integral part of meeting the society's recreational needs (Hall and Harkonen,2006). Recreation at reservoirs, natural lakes and streams must be managed to prevent overuse and degradation. In some cases, reservoirs releases can contribute to downstream recreation benefits by improving fisheries, the abundance of potential recreation sites limited need for careful planning of recreation facility development (Smith and Jenner , 1995).

Water based tourism and recreation is becoming a highly competitive business as nations actively seek to draw increased number of visitors to their shores(Cox, 1999). The quality of the water body must be maintained at sufficiently high level to provide a healthy and aesthetically pleasing for water based tourism and recreation to thrive (West, 1990). Water based recreation is categorized into indoor and outdoor types. Indoor activities takes place within for example aquarium, which could be enjoyed through view aesthetically. Outdoor activities take place in an open water body for example boat riding, sport fishing etc.

Ecotourism, which is seen as a form of nature based tourism could be developed by harnessing of natural resources .Most of the efforts at developing tourism in Nigeria have been focused on wildlife with little attention on aquatic resources with tourism potentials. Although, few beaches are being developed for their tourism potentials, no dam at the moment in Nigeria has been developed for the purpose of ecotourism.

Oba dam has for long, been spelt in many documents as Awba dam rather than Oba dam. The dam is located on the Oba river that drains the southern part of the campus .The river itself is a tributary of the Ona river , the major river flowing through the south eastern part of campus (Adeyemi *et al.*, 1972). The water of the dam is subjected to occasional multi- directional water movement due to wind effects. This wind action is minimal during the dry season .The temperature of the lake at this time is high and this results in thermal stratification of the water meters above the sea level, it is surrounded by modified tropical rain forest vegetation , due to various human activities.

Awba dam was created for the purpose of providing water for the domestic needs of the University, provide opportunities for fish culture and to facilitate fisheries research. In recent times, the dam has not been used to provide the latter, hence the management of the University decided to turn the dam into a recreational center. The most important fauna found include *Oreochromis niloticus*, *Sarotherodon melanotheron*, to name a few. It is also rich in hydro plants like *Commelina benghalensis*, *Cyprus spp*, *Pistia stratiote* and so on.

Recreational sites generate income, provide employment, entertainment, opportunity for personal and social improvement to the economy. Today's recreationists are willing to pay for the preservation of the natural and social environments they seek to explore. Water based recreation

is still at its novel stage in Nigeria, This is the reason why not much has been carried out with respect to it. (Ryan, 2003).

This study aims at identifying benefits accrued to water based recreation and accessing the level of awareness among the inhabitants of the University of Ibadan.

MATERIALS AND METHODS

DESCRIPTION OF STUDY AREA

The University of Ibadan is the first University in the sub-sahara region of West Africa. It is located in Ibadan, the largest city which is the capital of Oyo state. Ibadan is located in south-western Nigeria and a prominent transit point between the coastal region and the areas to the north .The principal inhabitants of the city are the Yoruba people but being a metropolis other people from different tribes are found in Ibadan. It is the largest metropolitan geographical area with a population of 1,338,658 according to 2006 census, the metropolitan area covers a total land area of 3,123km² of which the main city covers 463.33km².

THE AWBA DAM

The Awba dam is situated within the southern area of the University of Ibadan which is the first University in the sub-Sahara region of West Africa. The dam was created by damming the Awba stream in April 1964 for certain purposes within the University (Ogundele,1990). It has an altitude of about 185 meters above sea level, latitude N07 26 544 to 560 and longitude E 003 53 177 to 236 with a depth of 18ft.

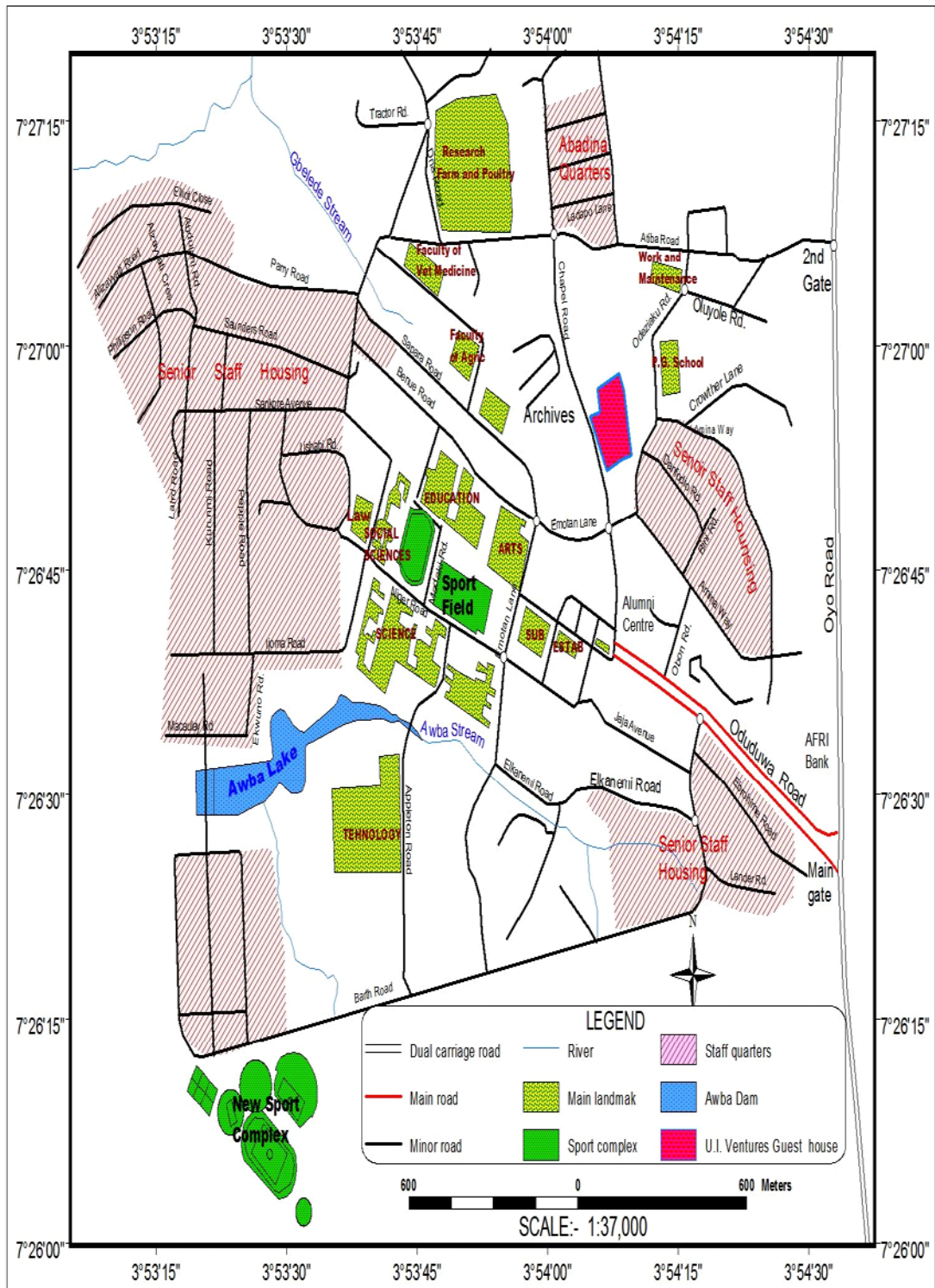


Plate 1: The map of the University of Ibadan campus showing the Awba dam.

SAMPLING TECHNIQUES

The study was conducted by selecting 3 Faculties (30% of all the Faculties) in the University of Ibadan using simple random sampling method. The Faculties were chosen based on the fact that these were the most populated (Faculty of Science, Arts, and Agriculture respectively), they have more Departments and students than other Faculties in the University of Ibadan. In each of these Faculties selected, structured questionnaires was administered to 30% of the Departments, to 30% of students and members of staff (academic and non-academic).

THE QUESTIONNAIRE SURVEY

A total of 524 questionnaires were designed and administered for this project so as to obtain information from members of staff (academic and non academic) and students of the University community. These administered questionnaire was used to elicit information on respondents' socio demographic characteristics, level of awareness, social acceptability of ecotourism and the perceived benefits of ecotourism. Awareness and social acceptability of ecotourism was measured with the aid of closed, open ended and dichotomous questions. Perceived benefit of ecotourism was measured on a 10-point scale.

Also, open and close-ended questions was designed. The close-ended questions provide the researcher with suitable list of responses from the respondent. The open ended questions were designed to afford the respondents the opportunity to give responses without being limited to any option. Also, dichotomous questions (Yes/No), short answers and Likert style scale (5 point scale, where 1 = strongly agree/high and 5 = strongly disagree/low were used.

METHOD OF DATA ANALYSIS

Data collected in the course of this study were subjected to inferential and descriptive statistics. The descriptive statistics included frequency counts and percentages while the inferential statistics used were Chi square method.

RESULTS

PERSONAL CHARACTERISTICS OF RESPONDENTS

Having sought responses from the respondents on various issues to address the objectives of the study, summary of their personal characteristics of the respondents are presented as follows.

Table1: Distribution of respondents based on demographic characteristics

VARIABLES	F	%
Age (in years)		
≤ 20	170	32.9
21-25	249	48.2
26-30	38	7.4
31-35	24	4.6
36-40	14	2.7
above 40	22	4.3
Sex		
Male	263	50.9
Female	254	49.1
Marital status		
Single	445	86.1
Married	70	13.5
Others	2	0.4
Occupation		
Staff	89	17.2
Student	418	80.9
Others	10	2.0
Income in Naira(monthly)		
< 5000	73	14.1
5000-10000	101	19.5
10000-15000	148	28.6
15000-20000	46	8.9
20000-30000	46	8.9
> 30000	103	19.9
Level of education		
Primary	3	0.6
Secondary	12	2.3
Tertiary	502	97.1
Religion		
Christianity	430	83.2
Islam	85	16.4
Others	2	0.4

Table 1 showed that 50.9 % of the respondents were male and 49.1 % were female.

Over 86.1 % of the respondents were single, 13.5 % were married while 4 % were divorced or widowed.

Larger populations of the respondents were students 80.9 % while 17.2 % of the respondents were members of staff.

The respondents represented a well educated segment of the population, with 97.1 % having tertiary education, 2.3 % having secondary education, 6 % having primary education. A higher percentage of the respondents would be expecting up to date modern facilities at the dam.

About 16.4 % of the respondents were Muslim, 83.2 % were Christian; therefore, larger population were Christians.

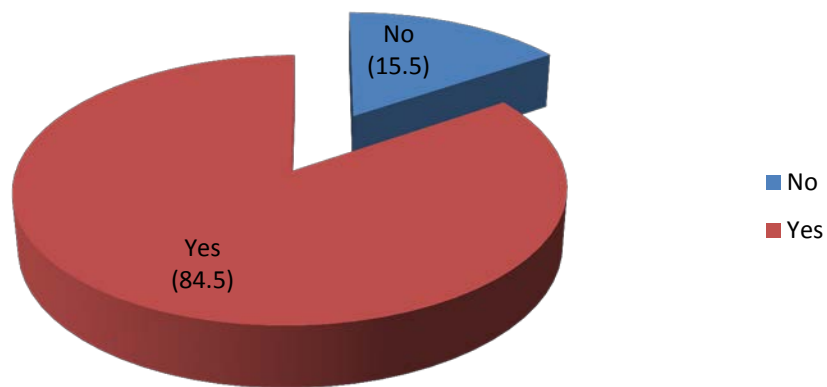


Figure1: Respondents awareness of the existence of the Awba dam.

Figure 1 shows that 84.5 % of the respondents are aware of the existence of Awba dam, 15.5 % are not aware. This means that a larger population of the respondents are aware of the dam's existence.

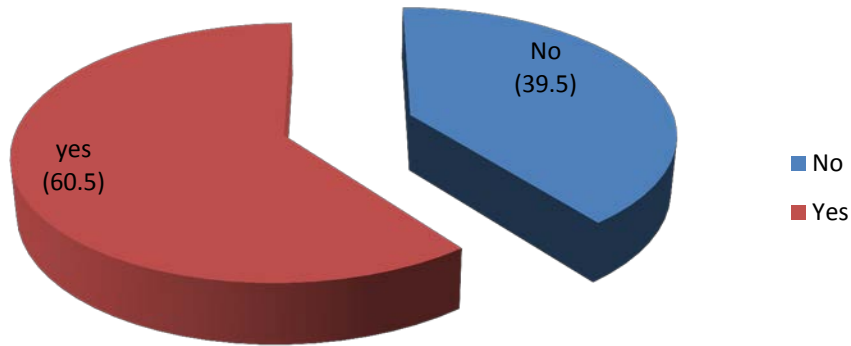


Figure 2: Percentage of respondents that have visited the dam.

Figure 2 shows that 60.5 % of the respondents have visited the dam, 39.5 % have not visited the dam , the few people have not visited the dam could have been due to time constraint, busy schedule or inability to locate where the dam is situated.

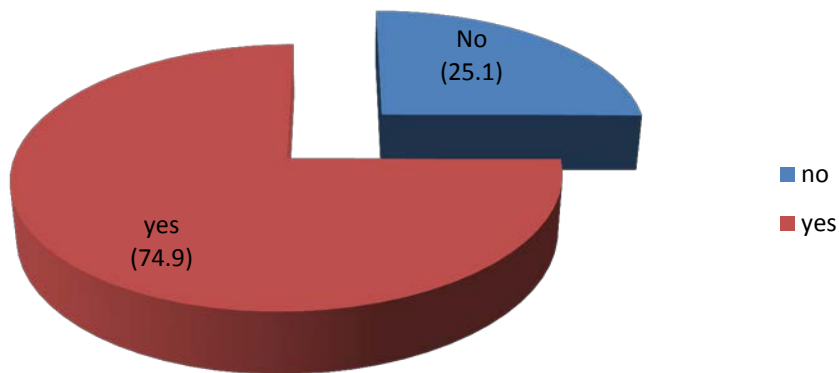


Figure 3 Percentage of respondents that are aware of Ecotourism.

Figure 3 shows that 74.9 % are aware of ecotourism, 25.1 % are not aware of ecotourism.

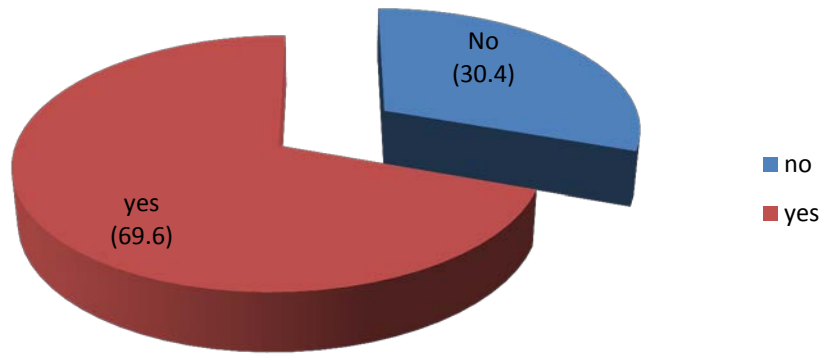


Figure 4 Percentage of respondents that have visited water based recreational center.

Figure 4 shows that 30.4 % of the respondents have not visited any water based recreation centre before while 69.6 % of the respondents have visited water based recreational centre before.

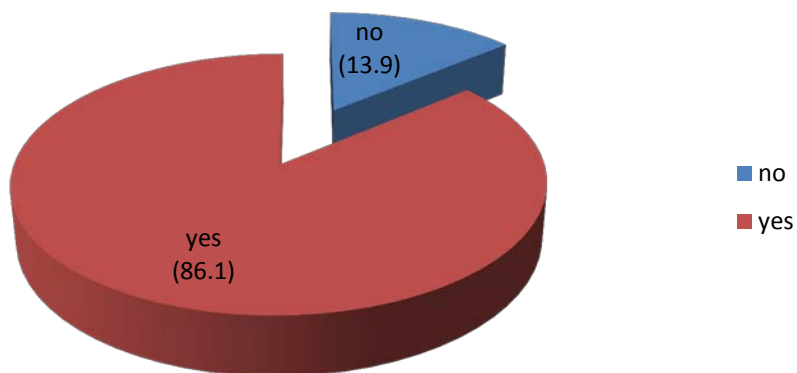


Figure 5: Percentage of respondents that would love to visit water based recreational center.

Figure 5 shows that 86.1 % respondents would love to visit water based recreational centre while 13.9 % of the respondents have no interest in visiting a water based recreational center.

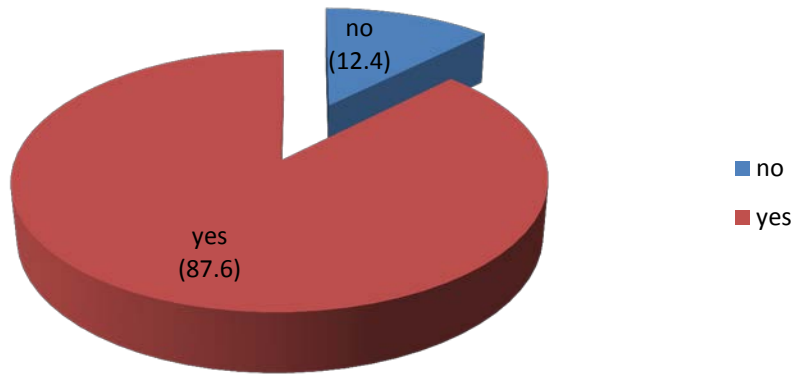


Figure 6: Percentage of respondents that would visit Awba dam if it becomes a water based recreational center.

Figure 6 shows that 87.6% of the respondents would like to visit Awba dam if it becomes a water based recreational centre while 12.4 % would not visit Awba dam if it becomes a water based recreational centre.

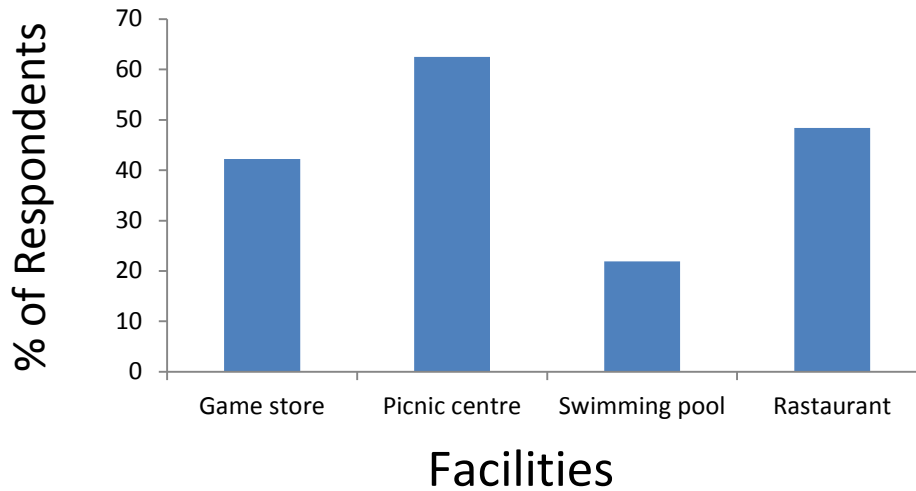


Figure 7: Facilities that respondents would like to be present at Awba dam.

Figure 7 shows that 42.2 % of the respondents want game store, 62.5 % want picnic center, 42.2 % want swimming pool, 48.4 % want restaurant. This implies that respondents want varieties of recreational facilities.

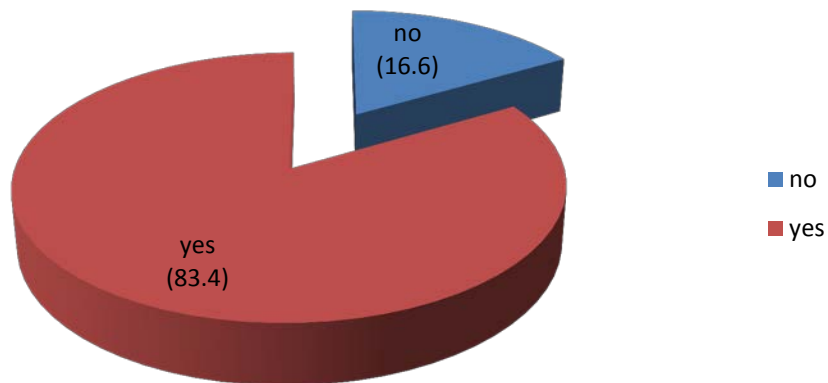


Figure 8 : Percentage of respondents that sees Awba dam as beneficial when developed to a water based recreational center.

Figure 8 shows that 83.4 % of the respondents see Awba dam as beneficial when developed to a water based recreational centre, 15.6 % of the respondents did not see Awba dam as beneficial when developed to a water based recreational centre.

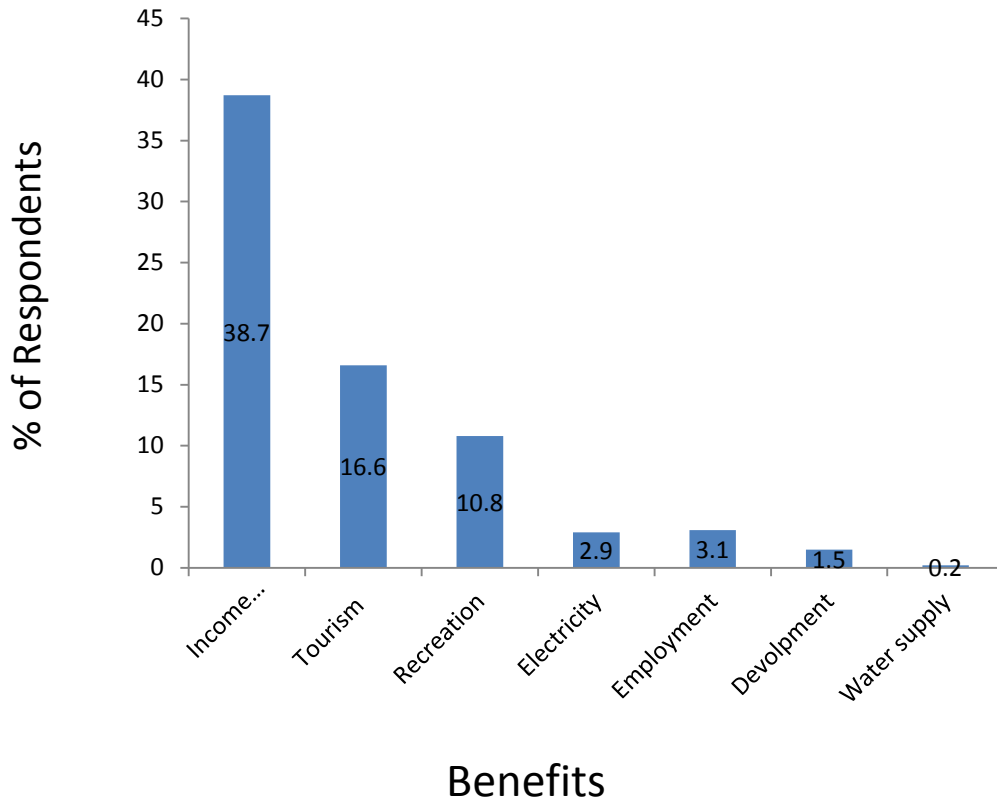


Figure 9: Benefits the University/respondents could derive from Awba dam when developed to a water based recreational center.

This figure showed the benefits the University/respondents could derive from Awba dam when developed to a water based recreational centre. The highest number (38.7 %) of the respondents believe income can be generated at the dam, (16.6 %) of the respondents would enjoy tourism at the dam, (10.8 %) of the respondents would get recreational benefit, (2.9 %) of the respondents feel the dam can generate hydro-electricity, (3.1 %) of the respondents believe the dam can gainfully provide employment, (1.5 %) of the respondents believe developing the dam is a way of developing the UI community, (0.2 %) of the respondents believe the dam would be a good source of water supply to the UI community.

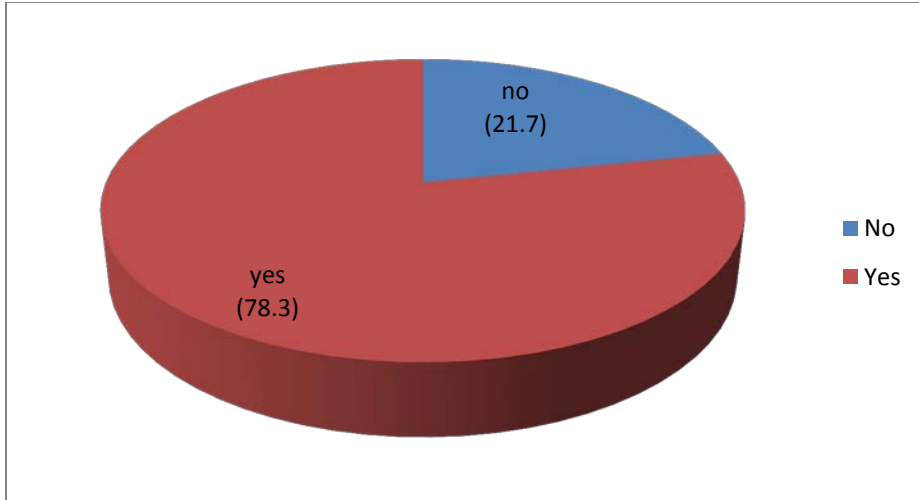


Figure 10: Percentage of respondents that are willing to pay for recreation at the dam

Figure 10 shows that 78.3 % of the respondents are willing to pay for recreation at Awba dam, 21.7 % of the respondents are not willing to pay for recreation at Awba dam. Majority of the respondents are willing to pay for recreation at the dam when it becomes a water based recreational centre.

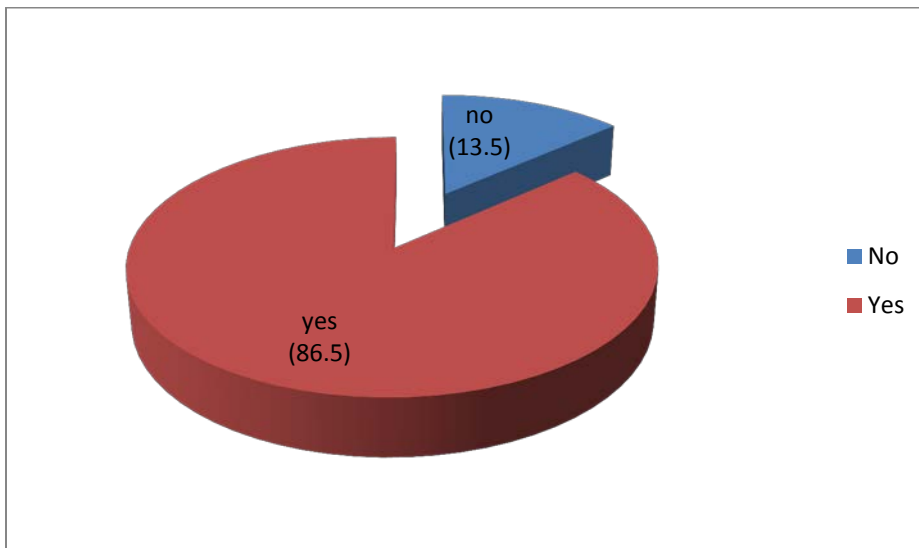


Figure 11: Respondents' feeling of Awba dam as water based recreational center.

Figure11 shows that 86.5 % of the respondents feel the existence of the dam as a water based recreational center is relevant, 13.5 % of the respondents feel the dam is not relevant.

Table 2: PERCEIVED BENEFITS OF ECOTOURISM

QUESTIONS	SA		A		U		D		SD	
	F	%	F	%	F	%	F	%	F	%
Awba dam can be successfully developed into a recreational center	328	63.4	155	30.0	31	6.0	2	0.4	1	0.2
Water based recreation at Awba dam is a way of developing the UI community	254	49.1	226	43.7	35	6.8	2	0.4		
Ecotourism development is beneficial to the UI community	270	52.2	202	39.1	44	8.5	1	0.2		
There is something I can gain from ecotourism	160	30.9	261	50.5	84	16.2	6	1.2	6	1.2
Awareness of Awba dam can be created through social media	284	54.9	181	35.0	51	9.9	1	0.2		
There are social benefits attached to conservation	208	40.2	251	48.5	50	9.7	7	1.4	1	0.2
Is conservation awareness necessary for water based recreation at Awba dam to be successful	189	36.6	221	42.7	87	16.8	19	3.7	1	0.2
Water based recreation at Awba dam is a way of exposing the UI community to danger	47	9.1	48	9.3	100	19.3	194	37.5	128	24.8
Water based recreation is a way of exploiting the UI community	63	12.2	97	18.8	93	18.0	161	31.1	103	19.9
I will never welcome anything that has to do with water based recreation at Awba dam.	24	4.6	29	5.6	66	12.8	170	32.9	228	44.1

Table 2 shows that 63.4 % of the respondents perceived that Awba dam can be successfully developed into a recreational centre, 52.2 % of the respondents perceived that ecotourism would be beneficial to the University of Ibadan community, 42.7 % of the respondents perceived that conservation awareness is necessary for water based recreation at Awba dam to be successful, 44.1 % of the respondents would not welcome anything that has to do with water based recreation at Awba dam.

The mean criterion was used to categorize respondents perception into two levels; high and low .Table 3 shows majority,(59%) of the respondents level of perceived benefit is high.

Table 3: Distribution based on level of perceived benefits

Level of perceived benefits	F	%	Mean	SD	Minimum	Maximum
High (39– 47)	305	59.0	39.04	4.12	25	47
Low (25 – 38.0)	212	41.0				

Hypotheses testing

Hypothesis 1: Perceived benefits of members of staff and students in the University

Categories	N	Mean	SD	t-value	P	Remark
Students	430	1.59	0.49	0.078	0.938	Not significant
Staff	87	1.59	0.50			

There is no significant relationship of perceived benefits between students and members of staff of the University of Ibadan. This implies that students and members of staff of this University perceive that water based recreation at Awba dam would be beneficial.

Hypothesis 2: Chi-square Analysis showing the relationship between Personal characteristics of respondents and the awareness of ecotourism at Awba dam

Variables	Chi-square value	D.f	Contingent co-efficient	p-value	remark
Membership status(Academic/non academic)	4.412	1	0.092	0.036	Significant
Level of study in the university.	2.745	4	0.080	0.601	NS
Sex	1.920	1	0.061	0.166	NS
Marital status	1.839	2	0.060	0.399	NS
Level of education	0.56	2	0.033	0.754	NS
Religion	6.915	2	0.115	0.032	Significant

The Chi square analysis shows that a significant relationship exist between membership status(academic/non academic),religion and the awareness of ecotourism at Awba dam. Level of study in the University, sex, marital status and level of education have no significant effect on the awareness of ecotourism potential of Awba dam.

DISCUSSION

From the results obtained from this study, it could be deduced that a larger population of the respondents (84.5%) are aware of the existence of Awba dam; the new recreational centre under construction in the University of Ibadan.

Perceived love to participate in recreational activities among the members of staff and students is high. The respondents who see Awba dam as beneficial when developed to a water based recreational center is 83.4%. Water based recreation has been documented by scientists to have a lot of benefits for children, students and adults alike. According to Hall (2006) and Snodgrass & Tinsley (1990), participation in recreation increases a student's satisfaction with their overall college experience and develops a sense of community. As documented by Elkins *et al.*, (2011) and Henchy (2011), a University recreation center creates an environment that fosters social interaction and integration which can help acclimate new students to campus life and build a sense of campus community. Also, it has been identified that benefits of participating in recreation include, but are not limited to stress reduction (Bryant, Banta, & Bradley, 1995; Haines, 2000; Lindsey and Sessoms, 2006), holistic wellness (Haines, 2000; Henchy, 2011; Osman, Cole and Vessel, 2006), physical strength (Haines, 2000; Kovac and Beck, 1997; Lindsey and Sessoms, 2006), and academic performance (Osman, Cole, and Vessel, 2006).

The benefits of recreation for adults is all encompassing. It has been documented by Schwarzenegger *et al.*, (2005) that recreation enhances active living, helps to limit the onset of disease and impairment normally associated with the aging process. Recreation activities that include physical activity help the aging population lead independent and satisfied lives helping them remain mobile, flexible and maintaining their cognitive abilities.

It was agreed by the respondents that recreation reduces the level of stress. This is consistent with the assertion of Ho *et al.*, (2003) that the human body has built-in stress relievers that can be triggered through recreation activity. Stress reduction through recreation also comes from group activities that strengthen social ties and the calming effects of desirable outdoor settings. All-in-all, being more relaxed promotes improved work performance, better social interactions, and a general sense of well being, all of which reduces stress (DPR, 2003). Studies demonstrate the many benefits associated with recreational escapes.

In a focus-group study of older women, participants reported that leisure gave them an escape from daily stresses and helped them cope with such major traumas as a death in the family (Siegenthaler, 1997).

Also, percentage of respondents who would visit Awba dam if it becomes a full-fledged water based recreational centre is very high(87.6%).When compared to the percentage of those who have visited a water based recreational centre before(69.6%),one can deduce that if respondents have a water based recreation in their vicinity, they tend to be more encouraged to go for it. The high percentage (83.4%) of respondents sees the centre to be beneficial in several ways. The benefits are in different shades and sizes. The importance of recreation cannot be over-emphasized. Studies involving both outdoor and computer simulated approaches have shown that natural environments in general, have a number of psychological benefits compared to urban settings. They have been shown to improve mood (Barton and Pretty, 2010, Hartig *et al.*, 2003, van den Berg *et al.*, 2003 and Ulrich, 1984), increase the ability to perform cognitive tasks (Berman *et al.*, 2008, Berto, 2005, Hartig *et al.*, 2003, Laumann *et al.*, 2003 and van den Berg *et al.*, 2003) and speed up recovery after surgery (e.g. Ulrich, 1984). More specifically, aquatic or “blue” environments were preferred over green environments such as forests as documented by Felsten, (2009) and Laumann *et al.*,(2001) and were associated with more positive mood and relaxation (White *et al.*, 2010 and White *et al.*, 2013). Recent qualitative research has also explored how families use beach visits in general for improving psychological and physical health (Ashbullby *et al.*, 2013).

The documented importance of recreation cannot be over-emphasized. According to DPR (2003),positive and enjoyable recreation experiences can decrease stress, anxiety and psychological tensions. A California Department of Parks and Recreation survey found that more than 75% of respondents cited relaxing and 59% reducing tension as very important factors influencing the enjoyment of their favorite recreation activities (DPR, 2003).

The enjoyable experiences we pursue directly affect our quality of life. Californians agree that participation in recreation activities contributes to their overall quality of life (DPR,2003).

It was found that over 65% of Californians felt outdoor recreation was important or very important to the quality of their lives in three consecutive surveys by the California Department of Parks and Recreation in 1992, 1997 and 2002. Additionally, the percentage increased with each survey conducted (demonstrating the growing importance of outdoor recreation in

Californians' lives) (DPR, 1994; 1998; 2004). Also, over 95% of California's mayors and chambers of commerce believe recreation areas and facilities improve the quality of life in their cities and communities (DPR, 2002; 2003).

The recorded population of University of Ibadan community is approximately 17,000; comprising of students, academic and non-academic staff and their families. This number is relatively large. As documented by Stancliff (2002), the impacts of parks and recreational facilities on a community is substantial. They are essential for strengthening and maintaining a healthy community. Recreation brings neighbors together, encourages safer, cleaner neighborhoods and creates a livelier community atmosphere. Parks and recreational facilities also help improve a community's image, socioeconomic status and enhances the area's desirability. This recreational facility will, without any doubt, rub off positively on the University of Ibadan community.

Willingness to pay for these recreational facilities recorded in this study is high (78.3%). This shows that respondents rank this resort centre as important on their priority list. This singular action would help among other factors in the sustainability of the recreational centre.

The benefits respondents and the University at large could derive from Awba dam when developed to a water based recreational centre is high. 38.7 % of the respondents believe income can be generated at the dam among other options. Recreationists would pay entrance fee and special fees for the different recreational facilities on ground. A lot of financial success stories have emerged from the University of Ibadan Zoological garden which serves as a recreational centre within the University campus. People from all walks of life, including students (primary, secondary and tertiary), visit this place for learning and recreational purpose. It is believed that Awba dam tourist centre, when it takes off fully, would attract people from all walks of life and also serve as a strong source of revenue for this institution.

CONCLUSION

Water based recreation is one of the fastest growing sector in tourism, little or no wonder people travel far or stay near and are willing to pay to enjoy what nature has got to offer in form of recreation. During recreation and leisure time, people are less concerned with differences and more concerned with having fun. The strength of a community is increased through recreation

activities that allow people to share their cultural and ethnic differences. Since University of Ibadan and its environ ,house/accommodate people from different ethnic background, the cord that binds us together will further be strengthened with the taking off of this tourist centre.

Results obtained from this study confirms that the members of staff and students are interested in visiting Awba dam for recreational purpose and are willing to pay for water based recreation at the dam .Therefore, water based recreation at Awba dam will serve many purposes aside money- generating venture for the University at large just like Zoological garden in the University. Recreation feels like a rain shower during scorching heat. Devoting some time for recreation helps in staying healthy and achieving a peace of mind.

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