

SECONDARY SCHOOL STUDENTS' PERCEPTION OF FORESTRY AND WILDLIFE MANAGEMENT IN RIVERS STATE, NIGERIA

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ABSTRACT

The study was conducted to ascertain the perception of secondary school students in Rivers State about Forestry and Wildlife Management as a field of study in the university. A total of 3000 respondents selected from 100 secondary schools through a multistage sampling procedure were used for the study. Only 63 out of the 3000 students expressed willingness to study the course in the university. The males accounted for 60.3% of the population willing to study the course. In each of the three Senior Secondary School Classes (SS1, SS2 & SS3) studied, less than 4% of the students expressed willingness to study the course. Students' ignorance of the existence of the course in the university was not the major factor responsible for the low interest as about 62% of the respondents were aware of its existence. Students' preference for some professions like medicine, law, engineering etc. which enjoy high esteem in the society; under-representation of Forestry and Wildlife Management in secondary school curricula; and inadequate knowledge of its career prospects, were the major reasons for the high disinterest in studying the course. The revision of the secondary school Curricula to adequately capture the importance of forests and the need for them to be managed sustainably, and massive public enlightenment on forestry education and its prospects were suggested as measures imperative for enhancing students' interest in the discipline.

Key Words: *Secondary school students; Forestry and Wildlife Management*

INTRODUCTION

FAO (2005) reported that about one half of the forests that covered the Earth are gone. Africa suffers the second largest net loss in forests with 4.0 million hectares cleared annually. At 11.1%, Nigeria's annual deforestation rate of natural forest is the highest in the world and puts it on pace to lose virtually all of its primary forest within a few years (Rhett, 2005)

Many of the environmental problems encountered globally today, are being attributed to deforestation and subsequent conversion of forest lands into other land uses. This has led to a global fight for a greener planet and sustainable forest management. However, sustainable forest management cannot be achieved without adequate manpower armed with requisite knowledge and skill. Rivers State which is located within the Niger Delta Region of Nigeria is endowed with abundant natural resources which include tropical rainforests, freshwater and mangrove swamps. However, these ecosystems which used to be highly productive and serve as sources of livelihood to the rural dwellers are being threatened by anthropogenic activities ranging from urbanisation, logging, oil

exploration and exploitation, and their associated negative consequences. When ecosystems are pushed to the point of failure, they convert into unpredictable state and human communities that depend on them convert as well. The current effort by the Rivers State Government to engender sustainable development cannot be achieved without a sustainable environment. Hence, the current challenge is to produce adequate manpower to sustainably manage her environment including the forest and wildlife resources and ensure sustainable livelihood for the people especially the rural dwellers.

Regrettably, there is palpable shortage of manpower in the Rivers State forestry and wildlife sector. An interactive session with the Director of Forestry in the Rivers State Ministry of Agriculture and Rural Development in February, 2010, revealed that the Forestry department has a total of 51 staff (2 Directors, 3 Chief Forest Superintendents, 1 Chief Forest Officer, 5 principal Forest Superintendents II, 3 Senior Forest Superintendents, 2 Forest officers, 19 Chief Forest Field Officers and 16 other Junior staff). This records show that Rivers State has inadequate manpower to sustainably manage her forestry and wildlife resources. To make matters worse, enrolment into the Department of Forestry and Wildlife Management in institutions of higher learning in both Rivers State and other states of the federation is quite poor. The public perception stands in stark and disturbing contrast to predictions of an impending shortage of technical and professional workers in the forest and wildlife sector. Most unfortunately, these predictions are an imminent reality. Daramola (2009) reported that forestry education has been undergoing a steady decline as evidenced by the 30% global reduction in enrolment into forestry education and training programmes. Alao (2010) also observed that enrolment figures are still low despite the fact that there are presently twenty universities in Nigeria offering forestry and allied courses. According to the author, figures of students' enrolment for technical forestry education showed an average of 74 per year between 1940 and 1999, while that of M.Sc and Ph.D stood at 11 and 17 between 1994/95 and 2003/2004 academic sessions respectively.

While trying to address a similar situation, Drummond *et al.*, (2006) observed that one of the questions that first needed to be answered was why enrolments were so low and where were students enrolling if not to forestry programmes. Therefore, a comprehensive knowledge and proper understanding of the reasons for low enrolment in Forestry and Wildlife Management as a discipline will provide a stepping-stone necessary for addressing this challenge, especially the prevailing shortage of manpower in the forestry and wildlife sector. This study was a step in that direction. The specific objectives were: (1) to evaluate the gender and class perception of Forestry and Wildlife Management among secondary school students; (2) to determine the number of secondary school students that want to study Forestry and Wildlife Management; and (3) to ascertain the reasons for low enrolment in Forestry and Wildlife Management.

MATERIALS AND METHODS

Description of the study area

Rivers State is located in the delta region in Southern Nigeria. It covers 11,077 square kilometers with two thirds of it in the Niger Delta geographical terrain. Its population as at 2006 was 5,185,400 ('Rivers' NigeriaGalleria.com). The dominant ethnic groups are Ijaw, Ikwerre, Etche, Ogoni, and Ogba/Egbema. Ijaw and Ikwerre are the most spoken languages although Pidgin English is widely used in radio and television

broadcasts. With an average temperature of 27°C , the inland part of Rivers state consists of tropical rainforest; towards the coast the typical river delta environment features many mangrove swamps. Fishing and farming are the principal occupations of the region. Plantains, bananas, cassava, oil palms, coconuts, rubber trees, raffia, and citrus fruits are grown. Rivers State is divided into twenty-three Local Government Areas (LGAs) containing 235 Government senior secondary schools (PPSB, 2009) and over 100 private schools. Figure 1 is the map of Nigeria showing the location of Rivers State while Figure 2 is the map of Rivers State showing the 14 LGAs sampled.



Figure 1: Map of Nigeria showing the location of Rivers State (in red colour)



Figure 2: Map of Rivers State showing the Study Area

Selection of sampling units (schools)

A multistage sampling technique as described by Oloyo (2001) was employed in the selection of schools for the study. Rivers State was purposively chosen in the first stage. In the second stage of sampling, 14 LGAs (61% of the LGAs in Rivers State) were randomly selected. A total of 100 schools (48 % of the schools in the 14 LGAs) were studied. In the third stage of sampling, the number of schools studied in each of the 14 LGAs was allocated proportionally and the specific schools randomly selected. For instance, in allocating sampling units proportionally to each of the 14 LGAs, the total number of schools in a particular Local Government Area was divided by the total number of schools in the 14 LGAs (208) and multiplied by 100 (the total number of schools studied in the 14 LGAs). Table 1 shows the proportional allocation of schools to the fourteen LGAs.

Table 1: Proportional Allocation of Schools to Local Government Areas

S/N	L.G.A	No. of Schools	No. of Schools Allocated
1.	AKUKU-TORU	5	2
2.	ASARI-TORU	10	5
3.	BONNY	4	2
4.	DEGEMA	10	5
5.	ETCHE	17	8
6.	ELEME	5	2
7.	GOKANA	11	5
8.	IKWERRE	12	6
9.	KHANA	22	11
10.	OBIO/ AKPOR	81	39

11.	OKRIKA	5	2
12.	OYIGBO	4	2
13.	PORT HARCOURT	12	6
14.	TAI	10	5
TOTAL		208	100

Administration of questionnaire

Questionnaire was administered to thirty (30) randomly selected science students (10 in S.S.1, 10 in S.S.2 and 10 in S.S.3) in each of the 100 schools studied. This gave a sample size of 3000 respondents.

Data collected include the respondent’s class of study, age, sex, knowledge of forestry and wildlife management as a course of study in the university, number of students that want to study Forestry and Wildlife Management, reasons for not wanting to study Forestry and Wildlife Management, courses of study preferred to Forestry and Wildlife Management and the reasons for such preference, among others. Descriptive statistics was used for data analysis. Percentages were computed and used to compare the respondents’ answers to the various questions asked.

RESULTS

Sex and Age Distribution of Respondents

Sex distribution of the respondents

The sex distribution of the respondents is shown in Table 2. Out of the 3000 respondents, 1658 were males while 1342 were females. The males accounted for 65.2% of the respondents from SS1 while 34.8% was females. In SS2, 41.2 % of the respondents were males while females accounted for 58.8%. In SS3, the males accounted for 59.4% while 40.6% was females.

Table 2: Sex distribution of respondents

Class	Frequency		Percentage	
	Male	Female	Male	Female
SSS 1	652	348	65.2	34.8
SSS 2	412	588	41.2	58.8
SSS 3	594	406	59.4	40.6
Total	1658	1342		

Age distribution of the respondents

The age distribution of the respondents is shown in Table 3. In S.S.1, a total of 781 students were in the age class (13 – 14): 528 males and 253 females; while 219 students were in the age class of 15 – 16 (124 males and 95 females). In SS2, 945 students were in the age class (14 – 17): 391 males and 554 females; while only 55 students were in the age class (18 – 21): 21 males and 34 females. In S.S.3, a total of 832 students were in the age class (15 – 18): 495 males and 337 females; while 168 students fell into the age class of 19 – 21 (99 males and 69 females).

Table 3: Age classes of male and female students in different classes

Class	Age (years)	Frequency		Total
		Male	Female	
S.S.1	13-14	528	253	781
	15-16	124	95	219
S.S.2	14-17	391	554	945
	18-21	21	34	55
S.S.3	15-18	495	337	832
	19-22	99	69	168
Total		1658	1342	3000

Students’ Knowledge of the Existence of Forestry and Wildlife Management as a Course of Study in the University

The students’ knowledge of the existence of Forestry and Wildlife Management as a course of study in the university is shown in Table 4. A total 1882 students were aware of the existence of Forestry and Wildlife Management as a course of study in the university while 1118 students said they were not aware. With respect to the various classes, a total of 627 students (414 males and 213 females) in SS1 were aware while 373 students (238 males and 135 females) said they were not aware. In SS2, a total of 617 students (221 males and 396 females) were aware while 383 students (191 males and 192 females) were not aware. In SS3, 638 students (369 males and 269 females) were aware while 362 students (225 males and 137 females) were not aware.

Table 4: Students’ knowledge of the existence of Forestry and Wildlife Management as a course of study.

Class	Sex	Frequency (No)	Frequency (Yes)	Percentage (No)	Percentage (Yes)
S.S.1	Male	238	414	36.5	63.5
	Female	135	213	38.8	61.2
S.S.2	Male	191	221	46.4	53.6
	Female	192	396	32.7	67.3
S.S.3	Male	225	369	37.9	62.1
	Female	137	269	33.7	66.3
Total		1118	1882		

Students’ Willingness to Study Forestry and Wildlife Management

The Students’ willingness to study Forestry and Wildlife Management is shown in Table 5. Among all the respondents, only 63 (2.1%) expressed willingness to study forestry and wildlife management in the university while 2937 (97.9%) said they do not

want to study the course. In all the 3 classes, less than 4.0% of the male and female students expressed willingness in studying the course while over 97% said they do not want to study the course.

Table 5: Students’ willingness to study Forestry and Wildlife Management

Class	Sex	Frequency (No)	Frequency (Yes)	Percentage (No)	Percentage (Yes)
S.S.1	Male	638	13	98.0	2.0
	Female	340	8	97.7	2.3
S.S.2	Male	397	16	96.1	3.9
	Female	577	11	98.1	1.9
S.S.3	Male	585	9	98.5	1.5
	Female	400	6	98.5	1.5
Total		2937	63		

Students’ Reasons for not wanting to study Forestry and Wildlife Management

There were numerous reasons the students gave for not wanting to study Forestry and Wildlife Management as a course in the university. All the reasons given were critically studied and merged in order to form these five main reasons: the fact that public awareness of the course is very low. Forestry and Wildlife Management as a discipline is hardly known to the general public; Under-representation of Forestry and Wildlife Management in secondary school curriculum and inadequate information about forestry in their respective secondary schools. Inadequate knowledge of the career prospects in Forestry and Wildlife Management; The tendency for secondary school graduates to prefer some selected professions like medicine, law, engineering etc. which enjoy high esteem in the society; The notion that Forestry is mainly practised in the rural areas; Inadequacy of educational institutions that teach Forestry and Wildlife Management.

The reasons students gave for not wanting to study the course are presented in Table 6. Reason number 3 is the highest among the reasons given by the students for not wanting to study forestry and wildlife management. A total of 265, 168 and 266 students in SS1, SS2 and SS3 respectively, gave this reason as their reason for not wanting to study the course. Reason number 2 is the second highest reason while reason 4 is the least among the reasons given by the students for not wanting to study the course. No male student gave this reason in all the classes while only 35 female students gave this reason.

Table 6: Students’ reasons for not studying Forestry and Wildlife Management.

Sex	Reasons	Frequency			Percentage		
		S.S.1	S.S.2	S.S.3	S.S.1	S.S.2	S.S.3
Male	Reason 1	143	112	146	35.7	27.9	36.4
	Reason 2	196	100	152	43.8	22.3	33.9
	Reason 3	265	168	266	37.9	24.0	38.1

	Reason 4	0	0	0	0	0	0
	Reason 5	34	17	21	47.2	23.6	29.2
	Total	638	397	585			
Female	Reason1	73	118	58	29.3	47.4	23.3
	Reason 2	80	178	121	21.1	47.0	31.9
	Reason 3	159	177	173	31.2	34.8	34.0
	Reason 4	0	34	1	0	97.1	2.9
	Reason 5	28	70	47	19.3	48.3	32.4
	Total	340	577	400			

DISCUSSION

The students' interest in studying forestry and wildlife management as a course in the university was generally low. Only 2.1% (63) of both the male and female science students sampled in all the three senior classes expressed interest in studying the course. Drummond *et al.*, (2006) equally observed low enrolment figures in forestry programmes in Canada despite efforts to restructure and market forestry programmes. Although the number that expressed interest in studying forestry and wildlife management is minute considering the sampled population, it is relatively high when compared with average figures recorded for the entire country by Alao (2010). For the entire country, figures of students' enrolment for technical forestry education showed an average of 74 per year between 1940 and 1999, while that of M.Sc and Ph.D stood at 11 and 17 between 1994/95 and 2003/2004 academic sessions respectively (Alao, 2010).

The seeming increase in interest is perhaps as a result of increase in the knowledge of the existence of the course in the university and the recent increase in awareness campaigns of the role of trees and forests in combating environmental problems especially global warming. Contrary to the findings of Daramola (2009), more than half of the sampled students (about 63%) were aware of the existence of Forestry and Wildlife management as a course of study in the university. It should also be noted that the themes for the World Environmental Day celebration since the past five years have centred on greening the planet through the planting of trees and preservation of our forests. For example: *Biodiversity- Ecosystems Management and the Green Economy* for 2010; *Your Planet Needs You- Unite to Combat Climate Change* for 2009; *Kick the Habitat- Towards a Low Carbon Economy* for 2008; *Melting Ice- a Hot Topic?*, for 2007; *Deserts and Desertification- Don't Desert Drylands*; and finally *Green Cities- Plan for the Planet!*, for 2005. Many states in Nigeria including Rivers State have done much to replicate such campaigns.

The male students dominated the population that expressed interest in studying the course. They accounted for 60.3% of the population willing to study the course. This could be attributed to greater awareness of the existence of the course among the male students, and the fact that the female students are likely to dread the course due to the laborious nature of the activities associated with it. Daramola (2009) also observed that the forestry profession is male dominated. In all the sampled classes, the S.S.3 class expressed the least willingness to study Forestry and Wildlife Management in the university.

According to Daramola (2009) "Interest" is the foremost of all the factors guiding a choice of career. The students, who expressed disinterest in studying the course, gave

several reasons for this. Among the reasons, the tendency for secondary school students to prefer some professions like Medicine, Law, Engineering, etc., which enjoy high esteem in the society is the most prominent among the male and female students in all classes. Another reason is the fact that the prospects of the course are rarely discussed whenever it is mentioned. People rather discuss the potentials of courses like Medicine, Engineering, Law, and so on, in career talks. Drummond *et al.*, (2006) observed that these reasons have led to a negative feedback cycle from which only a few schools have been able to break free. According to the authors, the cycle follows a typical pattern: decreasing enrolments and the potential for declining quality of applicants, decreased number of graduates, increased cost per student to deliver programme, threats of programs closure and/or merging with other programs and or staff layoffs, actual programme closure among others.

CONCLUSION

The students' interest in studying forestry and wildlife management as a course in the university was generally low. Only 2.1% (63) of both the male and female students sampled in all the three senior classes expressed interest in studying the course. The males accounted for 60.3% of the population willing to study the course. Students' preference for courses like Law, Medicine, Engineering, etc. which enjoy high esteem in the society was observed as being the major reason for the students' lack of interest in the course. The notion that forestry is only being practised in the rural areas was not actually a major reason for students' lack of interest in the course except for few girls. Ignorance of career prospects and not ignorance of the existence of forestry and wildlife management as a course of study in the university seem to be the reason for secondary school students' lack of interest in studying the course as about 62 % of the students were aware of its existence.

The curricula of secondary schools in Rivers State should be reviewed to adequately capture the importance of forests and the need for them to be managed sustainably. There is urgent need to create awareness and change the negative perception of the public about the forestry profession. Massive public enlightenment on forestry education and its prospects is needed. The need to re-orientate and re-direct people's focus is highly imperative for forestry education to gain prominence in Rivers State.

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