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ASSESSMENT OF THE ENROLMENT OF FORESTRY AND WILDLIFE DISCIPLINE BY STUDENTS IN NIGERIAN UNIVERSITIES

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Abstract This study surveyed the preference of Forestry discipline among Forestry and Wildlife students in selected Universities in Nigeria. Google Form online questionnaire was used for data collection in the study. Sum of 873 students from 19 Universities provided answers to the questionnaire out of which 57.4% were males and 42.6% females with ages below 20 years (14.5%), 21 – 30 years (78.2 %), 31 – 40 years (5.2%) and above 40 years as 2.1%. The respondents were in 100 level (6.3%), 200 level (18.2%), 300 level (29.3%), 400 level (14.4%) 500 level (12.7%), on national Youth Service Corps (2.7%) and graduates (16.4%). Most students (85%) were single, 7.2% in marital relationship and 7.0% married. Enrolment in Forestry and Wildlife in Nigerian Universities was increasing (81.6%), constant (10.3%) and decreasing (7.8%). Although 72.6% of the students never chose Forestry and Wildlife at the university, 76.3% were satisfied reading the course, 71% agreed to obtain higher degrees in Forestry after graduation, (43%) claimed insufficient facilities, inadequate classroom and laboratories (51.1%) were their challenges, while 62.8% respondents believed they have sufficient lecturers were reasons for not taking Forestry as a profession. Most (67.2%) students detest forestry studies for lack of jobs; 15.1% students had no challenge, 11.6% believed Forestry and Wildlife studies is not relevant in the modern world while 6.1% claimed they do not like the course. Also, majority (36.0%) of respondents still preferred Forestry and Wildlife program. Conclusively, if job opportunities, proper awareness and enlightenment; appropriate facilities, professionals and well-equipped laboratories were provided for the study of Forestry and Wildlife in Nigeria, the profession would be all-embracing to youths.

Keywords: Career, Forestry and Wildlife, Nigeria, students, university.

INTRODUCTION

Forestry education is a professional career in science which embraces both technical and vocational aspects of forestry. In traditional forest education, students are taught the principles and practice of how to raise, manage, harvest trees and process timber. Also, students are trained in forestry research, forest management, plantation establishment, timber harvesting industry and wildlife management (FAO, 2001).

In Nigeria, Forestry and Wildlife professional education started on October 2nd 1963 (Alo, 2010) at the University of Ibadan, Nigeria. The technical and vocational forestry education formally commenced on the May 1st, 1941 at the Federal College of Forestry, Ibadan, Nigeria (Alo, 2010). Since then, Forestry and Wildlife study has spread through many public and private universities, Polytechnics and Colleges in Nigeria.

Forestry and Wildlife education is very important for socioeconomic development of a country and can serve as a base for environmental stability and source of livelihoods for human. Several of the environmental challenges faced by globally by communities today are

ascribed to mismanagement of forest which leads to deforestation and consequent conversion of forest lands into alternative uses. This has consequently led to a global pursuit for a greener planet and sustainable forest management (Chima and Sobere, 2011). With the ever-increasing world population and the attendant consequences on the natural environment, there is serious and urgent need to train professionals in Forestry and Wildlife management to cushion the anticipated effects with scientific innovations and management.

However, public perception on Forestry and Wildlife education in Nigeria is worrisome because of disturbing contrast to the predictions of an impending shortage of technical and professional workers in the forest and wildlife sector (Chima and Sobere, 2011). Although students' enrolment in this profession appear to be increasing as a result of increasing number of higher institutions offering the program in Nigeria, many of the Forestry and Wildlife students seems to wink hooked into wrong public perception on Forestry and Wildlife profession. Most disturbing is the fact that many of these students reading Forestry and Wildlife go into the study either because they could not meet the requirements for their dreamed

courses or the admission office in their institution pushed them there just to fill vacuum in Department of Forestry and Wildlife.

Concentration on career and occupation standards, capabilities and performance depend mainly on ones' perception (Olujobi and Sale, 2015). Therefore, the success and failures of students in a profession will in one way or the other be attributed to their choices of perceptions (Daramola, 2009). Hence, the disposition of a student to a career or course of study greatly impacts the quality and quantity of content materials adopted and the acquisition of the suitable skills for the profession by the student. Professionals on learning theory suggest that there is a strong relationship between students' learning ability, productive outcome and attitude or perception (Nathaniel *et al.*, 2014).

The objective of this study therefore was to assess the appreciation of forestry profession amidst Forestry and Wildlife students in selected Nigerian Universities offering Forestry program with the aim of evaluating future prospects of forestry profession and practice in Nigeria.

Materials and Methods

Study Area

This study was carried out in selected Nigeria Universities offering Forestry and Wildlife courses. Nigeria is located in the West African region and lies between latitudes 4° and 14° N and longitude 3° and 15° E. It has the highest population in Africa and located between the Gulf of Guinea in the South and the Sahara Desert in the North. Nigeria occupies a land area of approximately of 923,768 sq.km (Allu and Ochedi, 2015). It is bounded on the northern side by Niger Republic, to the south by the Gulf of Guinea, on the East by Cameroon and on the West by Benin. Nigeria's climate is likely to see growing shifts in temperature, rainfall, storms, and sea levels throughout the twenty-first century.

Annual rainfall totals vary from 2,400 to over 4,000 millimeters. Nigeria is covered by three types of vegetation namely: forests (where there is significant tree cover), savannahs (insignificant tree cover, with grasses and flowers located between trees) and the montane land (least common and mainly found in the mountains near the Cameroon border. Temperature is between 16° in Jos to as high as 48° in the extreme North. The current population of Nigeria is 211,828,949 (Worldometer, 2021).



Figure 1: Map of Nigeria

Source: https://www.mapsofworld.com/lat_long/nigeria-lat-long.html

Experimental Design

Forestry and Wildlife University students were purposively assessed from Nigeria Universities that

offer the program. Google Form online questionnaire was employed to elicit information from the students from October, 2020 to March, 2021. The Form was administered randomly mainly through WhatsApp to students who have android phones. Also, students were asked to share the form among themselves. The target population was Forestry and Wildlife students from 100 level to 500 level, graduates of Forestry and Wildlife and those on National Youth Service Corps (NYSC).

Data Collection and Analysis

Data on demographic characteristics of respondents, name marriage of institution of respondents, students' enrolment, perception of Forestry and Wildlife career amidst students, perceived challenges associated with the study, perceived methods of improving Forestry and Wildlife among others were electronically collated on google drive as soon as respondents submitted their Form. Data collected were presented in tables and charts.

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RESULTS

Demographic characteristics of Forestry and Wildlife students in Nigeria Universities indicated that the students were more males (57.4%) than females (42.6%). Majority of them were single (85.8%) and between the ages of 21 - 30 years old (78.2%) while the list (2.1%) were above 40 years old and married (7.0%) with 7.2% were in a relationship (Table 1).

Table 1: Demographic Characteristics of Respondents

Variable	Frequency	Percentage (%)
Gender		
Male	501	57.4
Female	372	42.6
Total	873	100
Age in Years		
Below 20	127	14.5
21- 30	683	78.2
31- 40	45	5.2
Above 40	18	2.1
Total	873	100
Marital Status		
Single	749	85.8
Married	61	7.0
In a relationship	63	7.2
Total	873	100

Table 2 shows the names of universities of respondents. Highest number (24.7%) of respondents were from Federal University of Agriculture, Abeokuta followed by Federal University of Agriculture, Makurdi (23.1%) while the lowest (0.3%) were from River State University of Science and Technology.

Students of Forestry and Wildlife program in Nigeria Universities study under various Departments such as

Forestry and Wildlife Management (65.8%), Forest Production and Products (11.7%), Wildlife and Range Management and Social and Environmental Forestry with 7.1 % respectively. Others include Forestry, Wildlife and Range Management (3.4%), Forestry and Wood Technology (3%), Forestry and Environment (1.5%) and Forestry, Fisheries and Wildlife (0.5%) (Figure 1).

Table 2: Name of University of respondents

S/No.	Name of Nigerian University	Frequency (F)	Percentage (%)
1.	Bayero University	17	1.9
2.	Cross River State University of Science &Technology	5	0.5
3.	Federal University of Agriculture, Abeokuta	216	24.7
4.	Federal University of Agriculture, Makurdi	202	23.1
5.	Federal University of Technology, Akure	27	3.1
6.	Federal University of Technology, Owerri	12	1.4
7.	Federal University, Dutsin-Ma	6	0.7
8.	Modibbo Adama University of Technology	24	2.7
9.	Nasarawa State University	19	2.2
10.	Nnamdi Azikiwe University	19	2.2
11.	River State University of Science and Technology	3	0.3
12.	University of Benin	78	8.9
13.	University of Calabar	5	0.6
14.	University of Ibadan	37	4.2
15.	University of Ilorin	59	6.8
16.	University of Maiduguri	15	1.7
17.	University of Port-Harcourt	39	4.9
18.	Usmanu Danfodiyo University Sokoto	35	4.0
19.	Others	55	6.1
Total		873	100

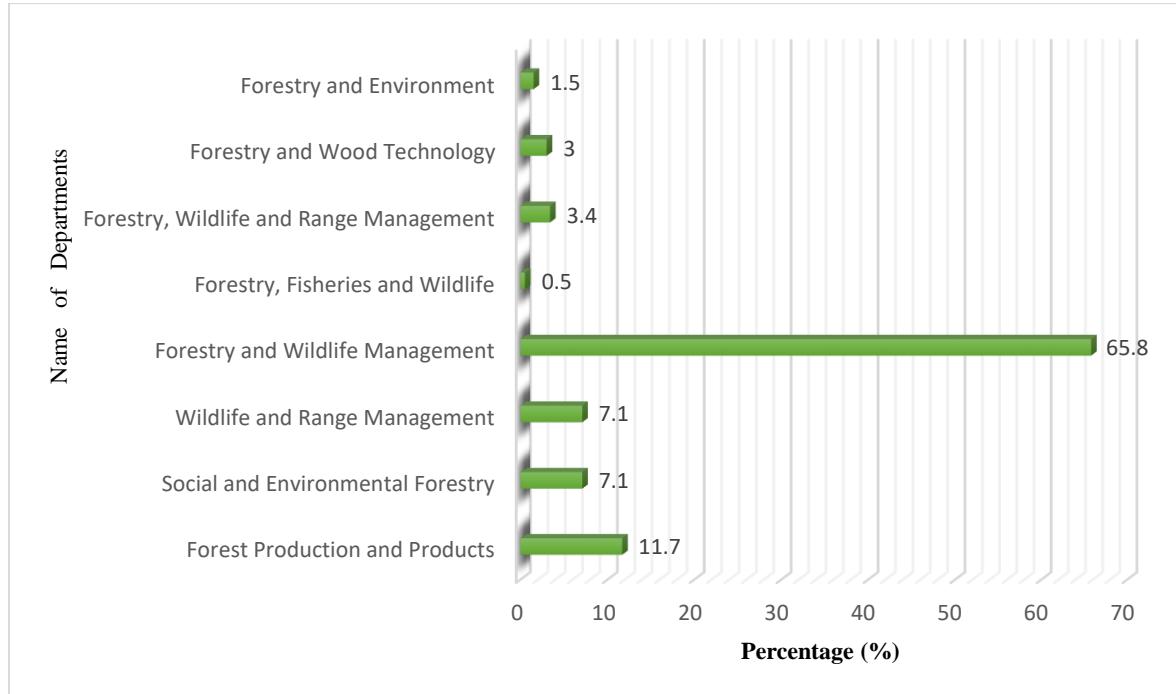
**Figure 1: Name Departments of respondents**

Figure 2 shows respondents' level of studies. The majority (29.3%) of respondents were in 300 level

followed by 200 level (18.2%), graduates (16.4%) and 400 level (14.4%). Others include: 500 level (12.7%),

100 level (6.3%) and those in the National Youth Service Corps (NYSC) (2.7%).

In Figure 3, respondents believed that the enrolment of students into Forestry and Wildlife program in Nigeria University is increasing (81.6%) every academic year while 0.3% claimed there was no further enrolment of students. In Figure 4, most (72.6%) students studying Forestry and Wildlife did not choose the program as a career in Nigeria University whereas only few (27.4%) were in the program because of deliberate choice.

Since many students studying Forestry and Wildlife in Nigeria University did not choose the program as a career, 76.3% were not satisfied reading the course while only 4.2% were satisfied with the studies. However, 10% of the respondents said they may be satisfied as 0.8% said they will never be satisfied with the profession. However, 71% respondents have planned to go for higher degrees in Forestry and Wildlife, 19.6% said they might go for higher degrees while 8.7% and 0.7% said no and never for higher degrees, respectively (Table 3).

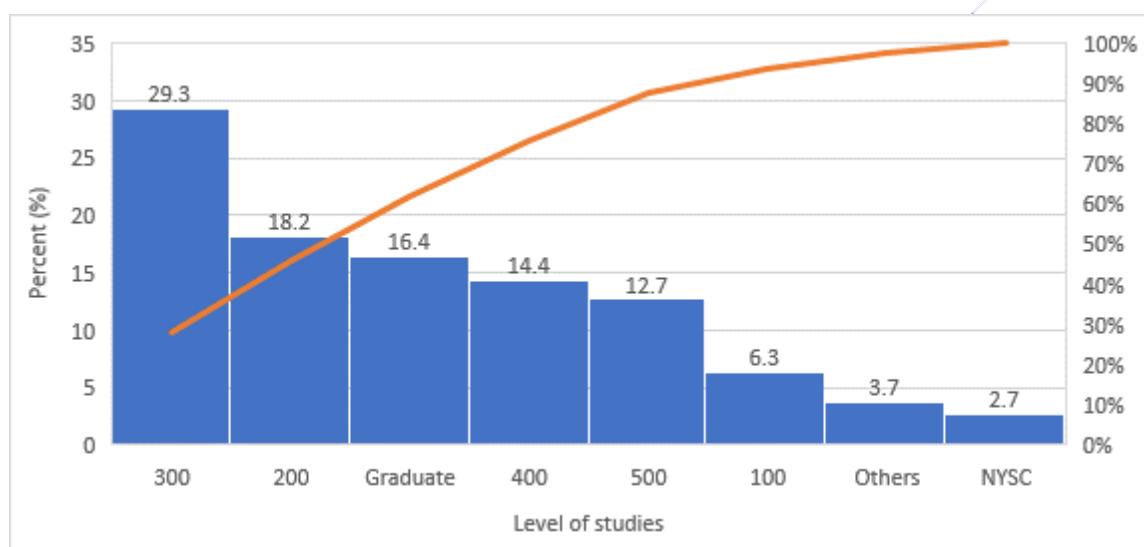


Figure 2: Respondents' Levels of study

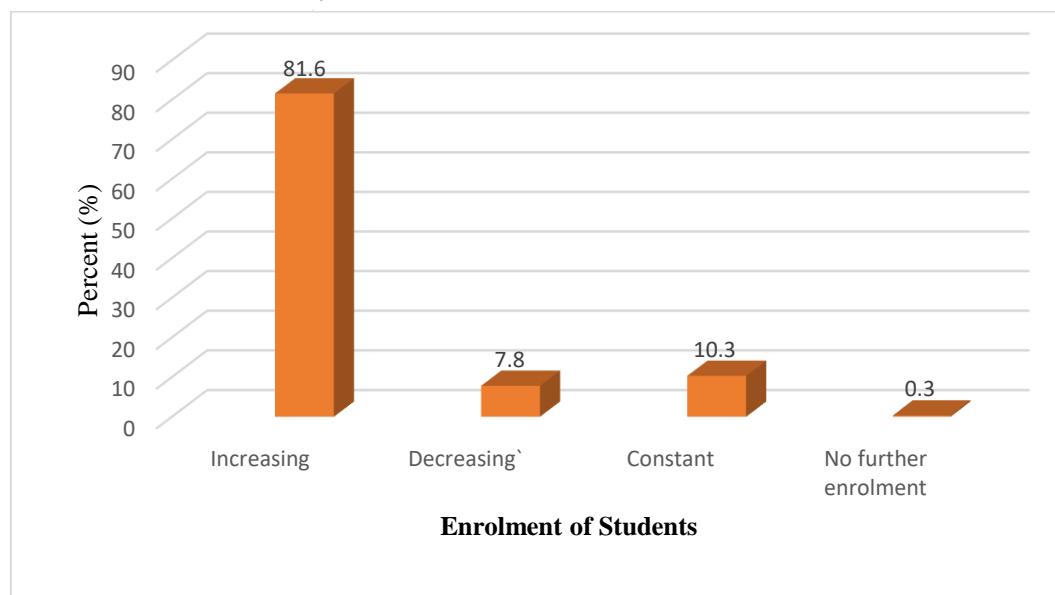


Figure 3: Forestry students' enrolment in Nigeria University

Students (43%) Forestry and Wildlife program in Nigeria Universities believe that they not have sufficient facilities to study the course; 51% claim

they have adequate classrooms and laboratory while 62.8 % said they have sufficient Lecturers Table 4).

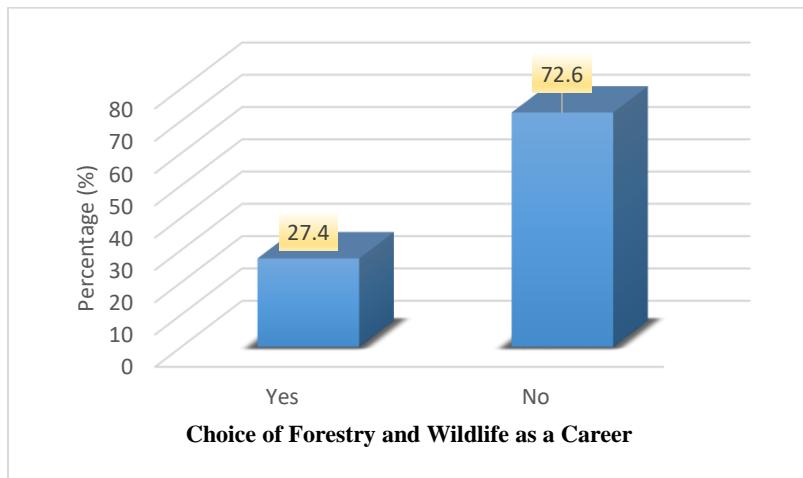


Figure 4: Choice of Forestry and Wildlife as career in Nigeria University

Table 3: Perception of Forestry career amidst Forestry and Wildlife students in Some Nigeria Universities

Question	Response	F	%
Are you satisfied reading Forestry and Wildlife as course?	No	666	76.3
	Yes	37	4.2
	Maybe	87	10
	Not yet	76	8.7
	I Will never	7	0.8
	Yes	620	71
Do you plan to go for higher degrees?	No	76	8.7
	Maybe	171	19.6
	Never	6	0.7

Table 4: Perceived Adequacy of facilities, laboratories and Lecturers in Forestry and Wildlife program in Nigeria Universities

Question	Response	F	%
Do you think you have sufficient facilities to study Forestry and Wildlife in Nigerian Universities?	Yes	312	35.7
	No	375	43
	Maybe	178	20.4
	No facilities	8	0.9
	Yes	427	48.9
Are your classrooms and laboratory adequate for your study?	No	446	51.1
	Yes	548	62.8
	No	325	37.2

Table 5 shows perceived challenges faced by University students in Forestry and Wildlife program in Nigeria. Majority (67.2%) claimed there are no job

opportunities in the profession which made 15.1% respondents to be indifferent about career. Also, 11.6% respondents believe Forestry and Wildlife

course is not relevant in today's world while 6.1% of the respondents said they do not like the name Forestry and Wildlife as a course of study.

Table 5: Perceived challenges associated with Forestry and Wildlife studies in Nigeria Universities

Perception	Frequency (F)	Percentage (%)
I do not like the name Forestry and Wildlife as a course of study	48	6.1
There are no job opportunities in Forestry and Wildlife profession	528	67.2
I am indifferent about Forestry and Wildlife profession	119	15.1
Forestry and Wildlife course is not relevant in today's world	91	11.6
Total	873	100

In response to alternative choice of course to Forestry and Wildlife if another opportunity was provided, 36% of respondents said they would go for Forestry and Wildlife; 17.8% for Medicine/Pharmacy; 10.5% for Agriculture/Agribusiness and 8.2% went for Environmental Sciences (Figure 5).

Awareness creation and enlightenment of the significance of the Forestry and Wildlife was rated highest (62.0%) by respondents as perceived method of improving Wildlife study in Nigeria Universities. Other methods include: embark on both local and

international excursions, symposiums and seminars (45.4%); participation in establishment of tree plantation and practice they learnt in classroom (43.6%) and self-job creation in the field of Forestry and Wildlife Management (33.1%). However, 28.2% respondents agreed that developing interest for Forestry and Wildlife study and acquiring knowledge in computer applications, software, GIS and programming languages (24.3%) would serve in improving interest in Forestry and Wildlife study in Nigeria Universities.

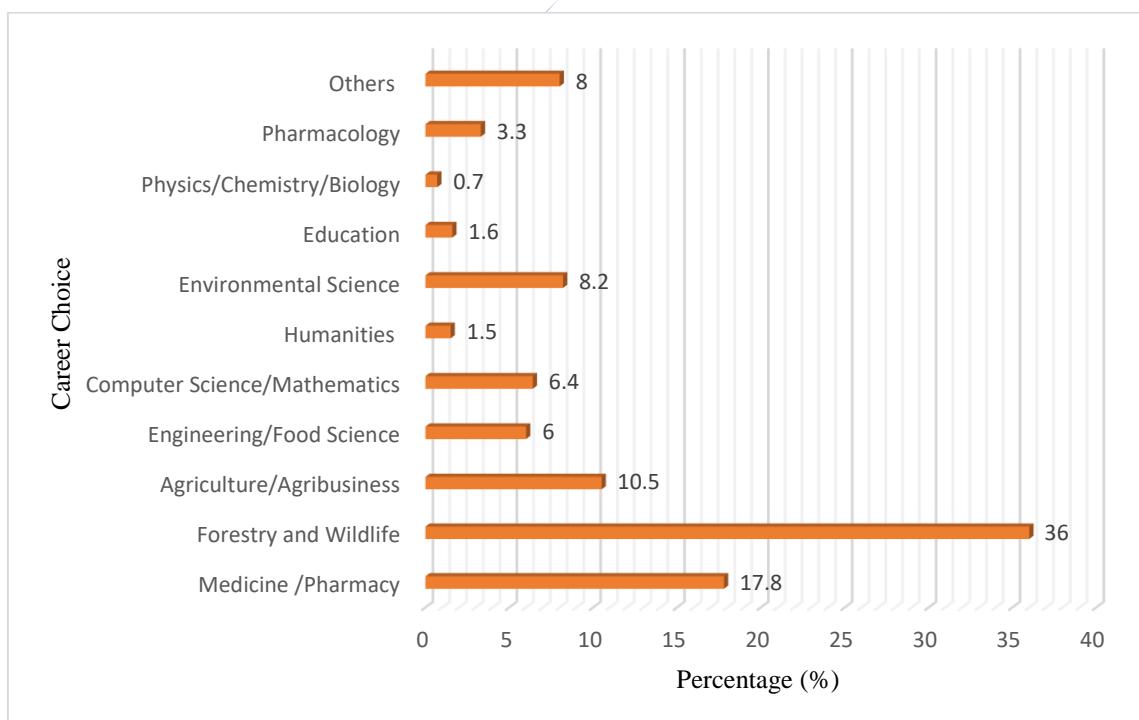


Figure 5: Choice of alternative course(s) in place of Forestry and Wildlife

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Table 5: Perceived methods of improving Forestry and Wildlife study in Nigeria Universities

Method of improving interest in learning	Frequency (F)	Percentage (%)
Participation in establishment of tree plantation and practice they learnt in classroom	373	43.6
Develop interest for Forestry and Wildlife Management study	241	28.2
Create awareness and enlightenment of the significance of the profession	520	62.0
Embark on both local and international excursions, symposiums and seminars	388	45.4
Acquire knowledge in computer applications, software, GIS and programming languages	208	24.3
Self-job creation in the field of Forestry and Wildlife Management	283	33.1
There is nothing the students can do	16	1.9

Discussion

Forestry and Wildlife students in Nigeria Universities were more of males than female. The reason could be that males naturally align with physically risky and tasking jobs than females. It could also be that there is more enrolment of male students in the Universities in Nigeria than females. This agrees with study of Varrella, (2020) who reported higher male enrolment of 960, 417 as number of University undergraduate students in Nigeria in 2017 in comparison with female enrolment of 750, 717 and 139, 504 males and 83,925 females enrolled for postgraduate studies in Nigeria Universities in the same year. The finding also agrees with Chima and Sobere, (2011); Daramola (2009) who reported that male students dominated the population of secondary students who expressed interest in studying Forestry and Wildlife.

The study showed there was an increase in the number of Universities offering Forestry and Wildlife program in Nigeria which implies corresponding increase in student enrolment in the program in Nigeria. This agrees with the respondents that the enrolment of students in Departments of Forestry and Wildlife in Nigeria was increasing though majority of the students did not choose to read the course. This high increase in student population in Forestry and Wildlife program in Nigeria University disagrees with the claim of Drummond *et al.*, (2006) who claimed low enrolment. Although respondents claimed a high increase in student enrolment in Forestry and Wildlife in Nigeria Universities, most of them were not satisfied with the profession. This could be that many of them did not choose the course. According to Daramola (2009) interest is the primary factor guiding a choice and performance in a given career. Nathaniel *et al.* (2014) reported that experts on learning theory recommend that there is a strong correlation between students'

learning ability, creative outcome and attitude or perception

Respondents gave several reasons why they were not satisfied. Among the reasons were lack of job opportunities, the belief that Forestry and Wildlife courses are not relevant in today's world, and dislike of the name. This agrees with the fact reported by Searle and Bryant (2009) why Universities and Government Agencies in Australia had approved name changes that eliminate the word 'forestry' from the profession to make it embracing. Also, the reasons are similar to the observations of Drummond *et al.*, (2006); Alao (2010); Chima and Sobere (2011). However, when asked if they plan to go for higher degrees, most respondents reported yes. This response may be from students in higher level and graduates who properly have been exposed to details and prospects in the career. This agrees with the report of Chima and Sobere (2011). Searle and Bryant, (2009) observed that half of students they interviewed on why students chose to study forestry in Australia reported that they developed interest in the profession when they met and interacted with professional foresters. That could also be the reason why most respondents agree to go for a Forestry and Wildlife degree when they were asked if given a second chance which course would they go for. This implies that unformed students in the forestry profession would always tend to like Forestry and Wildlife career.

Again, one of the reasons students may not like forestry profession in Nigeria is because of inadequate facilities, personnel and laboratory. This is because most respondents claimed they did not have sufficient facilities, adequate classrooms and unequipped laboratories to study Forestry and Wildlife in Nigerian Universities. To reposition the study of Forestry and Wildlife in Nigeria, Alo (2010) postulated that forestry

training at all levels and cadres should be appropriately established and properly delivered as required to encourage future generations who would like to take Forestry and Wildlife as a profession. This was why respondents proposed methods to enhance the profession which include: to create awareness and enlightenment of the significance of the profession; students should be provided with opportunities for both local and international excursions, symposiums and seminars; participation in establishment of tree plantation and practice what they learnt in classroom and be encouraged to create self-job in the field of Forestry and Wildlife Management among others.

Conclusion

There were more male students in Forestry and Wildlife study program in Nigeria than females. The increase in the number of Universities studying Forestry and Wildlife have increased student's enrolment in the career although the majority of the students claimed they were not satisfied reading the course mainly because they perceived there were no job opportunities in the discipline. However, most students who were properly informed about the prospects of the course, indicated interest for higher degrees in the profession. If proper awareness and enlightenment were created among the students; appropriate facilities, professionals and well-equipped laboratories were provided by Nigeria University management, the study of Forestry and Wildlife would be all embracing.

References

- Agbogidi OM & Eshegbeyi OF 2008. "Forestry development for a safe environment", In: Onykwelu, J.C., Adekunle, V.A.J. and Oke, D. O. (eds.). Proceedings of the 1st National Conference of the Forests and Forest Products Society of Nigeria (FFPN) held at the Federal University of Technology, Akure, Ondo State. pp. 95-98.
- Alao JS 2010. "Repositioning Forestry Education in Nigeria. *Electronic journal of environmental, agricultural and food chemistry (EJEAFChe)* 9 (2): 284-292.
- Allu EL A & Ochedi ET 2015. "Sustainable Urban Built Environment for Nigeria: A Framework Approach". *International Journal of Contemporary Applied Sciences*, vol. 2(5), 96 – 107.
- Arokoyo, T 1995. "The experience and lesson of the national agricultural extension system in Nigeria. "Presented at the SAFGRAD regional workshop on technology options and transfer systems for food grain production in sub-saharan Africa". Future perspectives and lessons for the 21st century, Abidjan.
- Chima, UD & Sobere PG 2011. "Secondary School Students' Perception of Forestry and Wildlife Management in Rivers State, Nigeria. *Journal of Agriculture and Social Research (JASR)*, 11(1), pp26 – 35.
- Daramola TM 2009. "Forestry education in Africa: State and Prospect". Outcome of discussion at the Northern African Regional meeting held at Federal University of Technology Akure, Ondo State, Nigeria. 18 - 23 October 2009,
- Drummond A, Candace P, Dan P, Andrew V, Jerome M, Yolanda S, & Roxanne C 2006. "The Crisis in Post-Secondary Enrolments in Forestry Programs: A Call to Action for Canada's Future Forestry Professional/Technical Workforce". A White Paper on Post-Secondary Forestry Recruitment. Published in The Forestry Chronicle – 2006. January / February, vol. 82(1), pp. 57-69.
- FAO 2001. "Expert Consultation on Forestry Education". FAO Report Rabat, Morocco.
- Nathaniel CE, Kenneth CE, Ekwuruchi OM, Flora NN, Godwin NA & Justin EE 2014. "Perception of Agricultural Science/Home Economics as a career among senior secondary school students in Abia State, Nigeria". *Journal of Life Sciences*, 8(6): 533-543.
- Olujobi OJ & Sale FA 2015. "Perception of Forestry as a Career Among Senior Secondary School Students in Ekiti State, Nigeria. *Nigerian Journal of Basic and Applied Science*, 23(2): pp. 157-163.
- Searle S. and Bryant C. "Why students choose to study for a forestry degree and implications for the forestry profession". *Australian Forestry*, vol. 72(2), pp. 71–79. 2009.
- Varrella S. 2020. "Number of university students in Nigeria as of 2017, by gender and course of study". <https://www.statista.com/statistics/1130794/number-of-university-students-in-nigeria/>
- Worldometer 2021. "Nigeria population". <https://www.worldometers.info/world-population/nigeria-population>