Knowledge and Attitude of the Staff of Emmanuel Alayande College of Education, Oyo Campus on the use of Ozone Layer Depleting Substances

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ABSTRACT

There are many situations where human activities have significant effect on the environment, ozone layer damage is one of them. This paper aims to investigate into the knowledge and attitude of the staff of Emmanuel Alayande College of Education, Oyo State, Nigeria, on the use of ozone layer depleting substances. Data in the study was collected via a questionnaire divided into two parts; the first part is designed to determine the knowledge of the respondents about the ozone layer as well as elucidate common misconceptions several people have about the ozone layer and related concepts such as greenhouse effect and global warming and the second part was constructed to determine the attitude of the respondents towards the use of ozone layer depleting substances. Two hypotheses were formulated and tested at 0.05 level of significance, the results of the data obtained were analysed using percentages and chi-square statistical tool of Statistical Package for Social Sciences (SPSS). The results showed that the knowledge of the staff in the field of science supersedes those of other disciplines, yet they have a few common misconceptions. Also, it was found that the attitude of the staff is significantly influenced by their level of education and area of academic discipline, as the null hypothesis formulated was rejected. It was recommended that environmental studies should be included in the school curriculum from primary level to tertiary level in order to enhance the knowledge of the populace on ozone layer depletion and its consequences.

KEYWORDS: Knowledge, attitude, ozone

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INTRODUCTION

Ozone layer is other wise called ozone shield. It is a region of the earths stratosphere that absorbs most of the suns ultraviolet radiation [1]. This region contains high concentration of ozone. This layer is mainly found in the lower portion of the stratosphere, from approximately 15 to 35 kilometers above the earth, although its thickness varies seasonally and geographically [2,3]. It absorbs 97 to 99 percent of the sun medium frequency ultraviolet light (from about 200mm to 315nm) which otherwise would potentially damage exposed life forms near the surface [4].

Since 1970, Scientists have observed reduction in the stratospheric ozone but it is more prominent in the polar regions [5]. Thinning of ozone layer was discovered in the 1980s, in the mid latitude, for example, over Australia, ozone layer is thinned and this has led to an increase in the UV radiation reaching the earth. It was estimated that about 5 - 9% thickness of the ozone layer has decreased, increasing the risk of humans to over – exposure to UV radiation owing to outdoor life style [6]. Also in atmospheric regions over Antactica ozone layer is significantly thinned, especially in spring season. This has led to the formation of ozone hole,

ozone hole refers to the regions of severely reduced ozone layer [6].

The depletion of ozone layer can be brought about by nature and it can also be caused by the day - to - day activities of man involving some substances capable of depleting the ozone in the stratosphere. Ozone layer has been found to be affected by certain natural phenomena such as sun- spots and stratospheric winds, but this has been found to cause not more than 1 - 2% depletion of the ozone layer and the effect are also thought to be only temporary [7]. The main cause for the depletion of ozone is determined as excessive release of chlorine and bromine from man-made compounds such as chlorofluorocarbons (CFC), halons, methyl chloroform (CH₃CCl₃), carbon tetrachloride (CC1₄), hydro chlorofluorocarbon (HCFCs), hydro bromofluorocarbons and methyl bromide are found to have direct impact on the depletion of the ozone layer [8]. These compounds are categorized as ozone depleting substances (ODS). Chlorofluorocarbon are released into the atmosphere due to the use of cleaning agents, coolants in refrigerators, packaging material, air conditioning fire extinguisher, agricultural fumigant and aerosol spray [9].

The montreal protocol is considered the most successful global environmental agreement setting out commitments by every country in the world to eliminate production and use of the chemicals that damage the ozone layer, in which Nigeria is not an exception [10].

In Nigeria, HFC import data entries obtained from Automated System for Custom Data(ASYCUDA) system of the Nigeria Custom Service for 2008 to 2014, authenticated on the occasion with National Food and Drugs Administration and Control(NAFDAC) data showed that import of HFCs in Nigeria between this period which is solely HFC – 134a totaled about 5080. 42 metric tonnes giving an annual average import of about 725.77 metric tonnes [11]. There is a strong link between the knowledge and attitude of people towards the use of ozone depleting substances [12].

[13, 14, 15] in separate researches found out that peoples knowledge of ozone depleting substances is low and their attitude towards the use and disposal of ozone depleting substance is poor. Unfortunately, there is scarcity of data in Nigeria as regards the knowledge and attitude of people towards the use and disposal of ozone depleting substances to the best of our knowledge. Contrary to the above findings [16] conducted a research to study the level of environmental awareness towards depletion of ozone layer among distributors and consumers in Oman, the researcher found out that the public in the case study have positive attitude and behavior towards the environment but this is not so according to the few data that are available in Nigeria [13, 14, 15, 17].

In a research conducted by [17] in Jumeta – Yola metropolitan area, Nigeria to appraise the local peoples' awareness about ozone depletion. The result showed that despite the fact that the respondent use ozone depleting substances, majority of them (68%) reported that they are unaware of the causes and effect of ozone depletion.

Purpose of the Study

It is established that the major causes of ozone depletion results from diverse activities of man releasing some gases capable of depleting the layer in the atmosphere. It is discovered that majority of the people in our society (including the literate individuals) do not know what the ozone layer really mean and its functions. However, those who claim to know do have several misconceptions.

The main objective of this study is to investigate how well the people are aware of the existence of the ozone layer, its significance, the causes of ozone layer depletion and the accompanying after effect. Hence, educating the populace and creating enlightenment on the preservation of the ozone layer.

This study is also aimed at determining the attitude of the respondents towards the use of ozone layer depleting substances.

Hypotheses

1. The degree of the knowledge of the staff of Emmanuel Alayande College of Education on ozone layer and its

depletion is not significantly influenced by the staff's gender, level of education and area of academic discipline.

2. The attitude of the staff of Emmanuel Alayande College of Education towards the use of ozone depleting substances is not significantly influenced by the staff's gender, level of education and area of discipline.

Significance of the Study

A study as this is imperative because of the need to drastically reduce the amount of ODS being released into the atmosphere on daily basis. There is a necessity to create awareness for the people and orientate the masses on the severe implications of the depletion of the ozone layer. This study is deemed to be an eye-opening tool for the general public, both learned and unlettered individuals.

There is a dire need for us to preserve the ozone in the stratosphere for us to live a normal life on earth.

Scope of the Study

This study is delimited to the staff of Emmanuel Alayande College of Education, Oyo,Oyo state,Nigeria (EACOED). The staff of the college was selected randomly from the four schools in the College main campus, these are, School of Arts and Social Sciences, School of Education, School of Languages and School of Science.

The institution is selected for this study because it is an academic environment which will help in achieving the objectives of this research study.

MATERIALS AND METHODS Research Design

The design used in this research is Descriptive Survey Method. The method was considered most suitable because it gives the researcher the opportunity to obtain the opinion of the representative subjects for the perception of the entire population.

Population

The population of this study is all staff of Emmanuel Alayande College of Education. The total population of all staff of the college in the four schools of the main campus is three hundred and thirty-seven (as at the time obtained from the office of the School Officer of each school). The population includes male and female which are academic and non-academic staff.

Sample and Sampling Technique

Random sampling technique was used in this research study. The respondents were randomly selected from each of the schools in the college main campus (i.e. school of science, school of education, school of languages and school of arts and social sciences) among the academic and non-academic staff. Forty per cent of the staff was selected and the total number of respondents used in this study is one hundred and thirty-five. Sample size of one hundred and thirty-five was used for convenient reason because all staffs member may not be reachable during the data collection. Multistage sampling of convenient, stratified and random techniques were used. Convenient for using sample size of 135 respondents instead of all, stratified for selecting sample size across the number of schools used and random to make sure that every member of staff qualified to be selected for participation was given equal opportunity to participate.

Data Collection Tool

For the purpose of this study, a questionnaire was used to collect the information from the respondents. The questionnaire was divided into two sections i.e. section A and section B. Section A consists of the personal data of the respondent such as age, sex, level of education, years of experience in the College. Section B consists of self-designed questions/statements to which the respondents are expected to give their response. This section however was divided into two parts. The first part was to test the knowledge of the respondents on the ozone layer and its depletion; this part also tests for misconceptions some people have about the ozone layer, greenhouse effect and global warming. In this part, a statement was given, and the respondents were provided with three options from which they are to pick one. The options are:

- 1. Correct
- 2. Wrong
- 3. No idea

The second part of section B was based on the attitude of the people towards the use of ozone layer depleting substances. They were expected to respond to the given statements under a four point scale, viz. STRONGLY AGREE, AGREE, DISAGREE, and STRONGLY DISAGREE

Data Analysis

The completed questionnaire was collected and analysed using both descriptive method and inferential statistics of Chi-square (X^2). Simple percentage was used to analyse the responses in the first part (which was based on the knowledge) while Chi-square statistical tool was used to analyse the responses elicited in the second part of the questionnaire (which was based on the attitude towards ozone layer depleting substances).

RESULT AND DISCUSSION

The data collected were analysed using Statistical Package for Social Sciences (SPSS). This involved the use of frequency counts and percentage and the use of Chi-square statistical tool to analyse the responses of the subjects to the questionnaire and testing the hypotheses.

Demographic Data Interpretation

The respondents used for this research study are the staff of Emmanuel Alayande College of Education, selected randomly from the four schools in the college main campus located at Erelu, Oyo. The distribution of the respondents in terms of gender and staffing description is presented in the table below.

Table 1: Description of staff role							
Staff Role	Frequency	Percent	Cumulative Percent				
Academic Staff	Inter76ation	al 5 <mark>6.3 m</mark>	56.3				
Non-academic Staff	of T59nd in	S43.711	100.0				
Total	135ear	c 100.0	• Q				
	Dovolo	nmont	.02				

The age distribution of the subjects is presented in Table 2. According to the data presented in the table, majority of the subjects are within age range 36 – 40, also a good number of them are between ages 31 and 35.

Table 2: Age distribution of Respondents									
Age Range	Frequency	Percent	Valid Percent	Cumulative Percent					
25 - 30	20	14.8	14.8	14.8					
31 - 35	36	26.7	26.7	41.5					
36 - 40	40	29.6	29.6	71.1					
41 - 50	27	20.0	20.0	91.1					
Above 50	12	8.9	8.9	100.0					
Total	135	100.0	100.0						

Table 2: Age distribution of Respondents

According to the table 3, the highest qualification obtained by the majority of the staff of Emmanuel Alayande College of Education is the Master's Degree which is represented in the table by M.Sc. (Master of Science) which include M.A (Master of Arts) and M.Ed (Master of Education); and it is mostly among the academic staff of the college as shown in table 4. 35.6% of the respondents are academic staff possessing a Master's Degree in their various disciplines while 17% hold a PhD (Doctor of Philosophy). 'Others' as shown in the table comprises of those having NCE, ND, PGD, and other diploma certificates.

Table 3: Highest Qualification of the Respondent

Qualifications	Frequency	Percent	Cumulative Percent					
SSCE	9	6.7	6.7					
HND	17	12.6	19.3					
B.Sc.	20	14.8	34.1					
M.Sc.	59	43.7	77.8					
PhD	24	17.8	95.6					
Others	6	4.4	100.0					
Total	135	100.0						

Highest Qualification * Staff Description Cross tabulation							
		Staff D	escription	Total			
		Academic Staff	IUtal				
	SSCE	0	9	9			
	SOCE	0.0%	6.7%	6.7%			
	HND	0	17	17			
	пир	0.0%	12.6%	12.6%			
	B.Sc.	4	16	20			
Highest Qualification		3.0%	11.9%	14.8%			
Highest Qualification	M.Sc.	48	11	59			
		35.6%	8.1%	43.7%			
	PhD	24	0	24			
	PIID	17.8%	0.0%	17.8%			
	Others	0	6	6			
	others	0.0%	4.4%	4.4%			
Total		76	59	135			
Total		56.3%	43.7%	100.0%			

Table 4: Cross tabulation of Respondents' qualification and their staff position

As shown in Table 4, 56.3% of the respondents are academic staff and 43.7% make up the non-academic staff which comprises of those having lower qualifications such as SSCE, HND, and B.Sc.

Table 5 shows the distribution of the respondents based on their area of academic discipline, there are thirty-three (33) respondents from both social sciences and arts, thirty-four (34) from the humanities and thirty five (35) from the sciences.

5: Distribution of Respondents based on area of Academic Disc								
Discipline	Frequency	Percent	Cumulative Percent					
Humanities	34	25.2	25.2					
Social sciences	33	24.4	49.6					
Sciences	35	2 5 .9	75.6					
Arts 🗧	33 au	24.4	100.0					
Total	of135end	100.0	lific S V					
23:	Rese	arch and	• • V					

Table 5: Distribution of Respondents based on area of Academic Discipline

Hypothesis (H_o) 1

 H_0 1 states that the degree of the knowledge of the staff of Emmanuel Alayande College of Education on ozone layer and its depletion is not significantly influenced by their level of education and area of academic discipline.

In table 6, it was found that 76.3% of the respondents know that the ozone layer is a gas layer created naturally and protecting the earth from harmful ultraviolet rays, among these 25.9% are from the sciences, 23.0% from the arts, 14.8% from humanities and 12.6% from the social sciences. It is observed that all respondents from the sciences said the statement is correct, this shows that science oriented individuals have knowledge on ozone layer. About 34.1% of the respondents have misconceptions about the statement that ozone layer depletes as result of release of greenhouse gases into the atmosphere, while 15.6% do not know the cause of ozone layer depletion. Only 29.6% of the respondents were able to say that statement three is wrong.

As crucial as statement 4 is, 21.5% of the respondents do not know that the thinning of ozone layer will result in more cases of skin cancer among people. 15.6% from humanities, 16.3% from social sciences, 15.6% from sciences and 14.1% from arts which make up 61.5% of the respondents had the misconception that ozone hole is the main reason for global warming. Only 53.3% know that CFCs (chlorofluorocarbons) are the principal material that depletes the ozone layer. A major concern about this is that most of the respondents do not know the meaning of CFC. A good number of the respondents were able to say that ozone depleting substances are widely used in some household appliances; the highest percentage (22.2%) being from the sciences.

Table 6 '*' means that it is the correct answer for the statement

			Hun	nanities	Social sciences		Sciences		Arts		Total	
			Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
1.	Ozone layer is a gas	*Correct	20	14.8%	17	12.6%	35	25.9%	31	23.0%	103	76.3%
	layer created naturally	Wrong	3	2.2%	10	7.4%	0	0.0%	0	0.0%	13	9.6%
	and protecting the	I don't Know	11	8.1%	6	4.4%	0	0.0%	2	1.5%	19	14.1%
	earth from harmful ultraviolet rays	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%
2.	Ozone layer depletes as	*Correct	17	12.6%	17	12.6%	25	18.5%	9	6.7%	68	50.4%
	a result of release of	Wrong	12	8.9%	7	5.2%	10	7.4%	17	12.6%	46	34.1%
	greenhouse gases into	I don't Know	5	3.7%	9	6.7%	0	0.0%	7	5.2%	21	15.6%
	the atmosphere	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%

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3.	The thinning of ozone layer is the non-	Correct	8	5.9%	11	8.1%	13	9.6%	15	11.1%	47	34.8%
	transmission of the	*Wrong	12	8.9%	12	8.9%	7	5.2%	9	6.7%	40	29.6%
	lights to the	I don't Know	14	10.4%	10	7.4%	15	11.1%	9	6.7%	48	35.6%
	atmosphere which are reflected from the crust of the earth	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%
4.	If the thinning of ozone	*Correct	20	14.8%	16	11.9%	31	23.0%	17	12.6%	84	62.2%
	layer increases, more	Wrong	6	4.4%	6	4.4%	3	2.2%	7	5.2%	22	16.3%
	people will get skin	I don't Know	8	5.9%	11	8.1%	1	0.7%	9	6.7%	29	21.5%
	cancer	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%
		Correct	21	15.6%	22	16.3%	21	15.6%	19	14.1%	83	61.5%
5.	The hole in ozone layer is the main reason for	*Wrong	5	3.7%	4	3.0%	10	7.4%	5	3.7%	24	17.8%
	global warming	I don't Know	8	5.9%	7	5.2%	4	3.0%	9	6.7%	28	20.7%
	Siobai warming	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%
6.	The most effective	*Correct	20	14.8%	12	8.9%	21	15.6%	19	14.1%	72	53.3%
0.	material leading to the	Wrong	10	7.4%	11	8.1%	3	2.2%	8	5.9%	32	23.7%
	thinning of ozone layer	I don't Know	4	3.0%	10	7.4%	11	8.1%	6	4.4%	31	23.0%
	is CFC gases	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%
7	Substances that deplete	*Correct	19	14.1%	21	15.6%	30	22.2%	23	17.0%	93	68.9%
<i>'</i> .	the ozone layer are	Wrong	8	5.9%	4	3.0%	3	2.2%	4	3.0%	19	14.1%
	widely used in some	I don't Know	7	5.2%	8	5.9%	2	1.5%	6	4.4%	23	17.0%
	household appliances	Total 🥖	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%
		Correct	13	9.6%	16	11.9%	24	17.8%	10	7.4%	63	46.7%
8.	Ozone layer protects	*Wrong	15	11.1%	9	6.7%	11	8.1%	21	15.6%	56	41.5%
	the world from high temperatures	I don't Know	6	4.4%	8	5.9%	0	0.0%	2	1.5%	16	11.9%
	temperatures	Total 🗧	34	25.2%	33	24.4%	<mark>3</mark> 5	25.9%	33	24.4%	135	100.0%
		Correct	18	13.3%	13	9.6%	20	14.8%	15	11.1%	66	48.9%
9.	The thinning of ozone	*Wrong	6	4.4%	9	6.7%	11	8.1%	11	8.1%	37	27.4%
	layer increases greenhouse effect	I don't Know	10	7.4%	11	8.1%	4	3.0%	7	5.2%	32	23.7%
	greennouse eneer	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%
10	. Increase in ultraviolet	Correct	11	8.1%	7	5.2%	11	8.1%	11	8.1%	40	29.6%
10	rays will also increase	*Wrong	14	10.4%	11	8.1%	12	8.9%	15	11.1%	52	38.5%
	the thinning of ozone	I don't Know	9	6.7%	15	11.1%	12	8.9%	7	5.2%	43	31.9%
	layer	Total	34	25.2%	33	24.4%	35	25.9%	33	24.4%	135	100.0%

Statement 8 – ozone layer protects the world from high temperatures – is wrong, but 46.7% were of the opinion that this statement is correct. This can be compared to statement 5 – the hole in the ozone layer is the main reason for global warming – which was also misconstrued by 61.5% of the respondents.

48.9% had the misconception that thinning of ozone layer will increase greenhouse effect, 23.7% did not know anything about this, while just 27.4% could tell that statement 9 is wrong. 38.5% of the respondents could said that statement 10 is wrong, 29.6% are of a wrong assertion that the statement is correct, yet 31.9% could not reach a decision based on the statement.

Summarily, a high percentage of the respondents have knowledge on ozone layer, the depletion causes and consequences, yet many of the respondents have misconceptions about the ozone layer, global warming and greenhouse effect. It is also found that respondents from the field of science show good knowledge of the ozone layer, yet many of them had misunderstanding of some concepts related to ozone layer and greenhouse effect and global warming.

Therefore, H_0 1 which states that the degree of the knowledge of the staff of Emmanuel Alayande College of Education on ozone layer and its depletion is not significantly influenced by their level of education and area of academic discipline is rejected and will be restated as "the degree of the knowledge of the staff of Emmanuel Alayande College of Education on ozone layer and its depletion is significantly influenced by their level of education and area of academic discipline".

Hypothesis (H_o) 2

 $\rm H_{o}~2$ states that the attitude of the staff of Emmanuel Alayande College of Education towards the use of ozone depleting substances is not significantly influenced by the staff's level of education and area of discipline

Table 7					
		Total			
	SA	Α	D	SD	IUldi
1. I am not informed about the existence of ozone layer and the consequences of its depletion	19	22	41	53	135
2. I know some substances that destroy ozone layer but I cannot do without them	25	43	56	11	135
3. We can live a normal life without ozone, so there is no need to worry about preserving the ozone layer	18	38	25	54	135
4. Checking for products that deplete ozone layer is a waste of time	31	25	34	45	135
5. I use my electrical appliances (such as refrigerators and air conditioners) and dispose them the way I like	23	77	25	10	135
6. I use substances that deplete ozone layer because I can't find a substitute for them	33	45	43	14	135
7. I prefer to repair my faulty appliances myself rather than take it to technicians	31	29	41	34	135
8. Ozone depleting substances cannot be eradicated totally; they are part of our lives	30	46	23	36	135
9. The production of those substances that deplete ozone layer should be stopped	38	43	39	15	135
10.0zone layer depletion is a global issue, how then can I preserve it when the majority are not aware	28	63	38	6	135
11.I have never heard that some chemicals cause ozone depletion	23	31	45	36	135
12.0zone depleting substances should not be manufactured at all since their effects are known	46	50	37	2	135
13.Environmental issues such as ozone depletion should be taught in schools	85	37	9	4	135
14.The depletion of ozone layer needs to be tackled by the nations of the world, not by individuals	51	60	20	4	135
15.Production and consumption of all principal ozone depleting gases should be reduced or phased out	57	60	9	9	135
Total	538	669	485	333	2025

In table 7, it was observed that forty-one (41) people said that they have not been informed about the existence of the ozone layer and the consequences of its depletion; eighteen people (18 SA) and thirty-eight (38 A) were of the opinion that we can live a normal live on earth without the ozone layer; seventy eight of the respondents (33SA & 45A) admitted to the fact that they use substances that deplete the ozone layer because there are no substitute for them.

Sixty of the respondents said that they prefer to repair their electrical appliances themselves rather than take it to experts for fixing. About ninety-six respondents were of the opinion that ozone depleting substances should not be manufactured at all since their adverse effects are known.

A very high number of the respondents agree that environmental issues including ozone layer depletion should be taught in schools.

Table of Chi-Square rests									
	Value	df	Asymp. Sig. (2-sided)						
Pearson Chi-Square	495.963ª	42	.000						
Likelihood Ratio	494.417	42	.000						
Linear-by-Linear Association	184.219	1	.000						
N of Valid Cases	2025								

Table	8.	Chi-Sc	mare	Tests

The data obtained were analysed using Chi-square statistics and the result is presented in table 8. The hypothesis was tested at 0.05 level of significance and degree of freedom of 42. Pearson Chi-square value is 495.963. The P-value < 0.01, therefore the null hypothesis is rejected.

Therefore, the alternate hypothesis is accepted and stated as "the attitude of the staff of Emmanuel Alayande College of Education towards the use of ozone depleting substances is significantly influenced by the staff's level of education and area of discipline"

This study investigates into the knowledge and attitude of the staff of Emmanuel Alayande College of Education, Oyo. It was found that majority of the staff do not have adequate knowledge about the ozone layer, its depletion and the resultant consequences. Few people who have little knowledge however misconstrue some facts about the ozone layer and greenhouse effect and global warming. A major concern is that even some of the educated fellows, who have qualifications as high as Doctor of Philosophy (Ph.D.), do not know about the ozone layer or have little information about the importance and its relevance to human and animal life on earth. It was found that the knowledge and attitude of the staff of Emmanuel Alayande College of Education is significantly influenced majorly by their areas of academic discipline. In terms of field of discipline, those in the sciences are more knowledgeable than those on other fields of knowledge such as the arts, humanities, social sciences etc.

Recommendation

Based on the findings from this study, the following recommendations are made in order to ensure preservation of the ozone layer in Nigeria and the world at large.

1. Environmental education should be included in the school curriculum from primary to tertiary institutions as a compulsory subject for all students in order to

provide adequate knowledge on ozone layer, greenhouse effect and global warming.

- 2. The production and manufacture of ozone depleting substances should be regulated by the government by the implementation of emission reduction policies and legislation
- 3. The government agency should create awareness for the populace on the need to preserve and recover the ozone layer.
- 4. The use of ozone depleting substances should be gradually reduced to the barest minimum, by the provision of funding phase down funding assistance.
- 5. Researches should be conducted to find appropriate substitutes for the substances that deplete ozone layer which are widely used in various industries and these industries should provide technical support and training for artisans that are using this ozone depleting substances.

By studying the ozone hole phenomenon, scientists have determined that humans can cause environmental change on a global scale and have an impact on the Earth's future. In the case of the ozone layer, steps have been taken to avoid further environmental problems by regulating human activities. Because the effect of releasing CFCs is a global issue, international protocols have been established in a [10] cooperative effort for the planet's future.

In Nigeria, it is essential that a policy of environmental education be prepared and adequate funds to be used in giving education be created to enable student to understand properly both the concepts like greenhouse effect, ozone layer and global warming and other environmental pollutions arising from human activities. The concepts and events about environment should be explained with tangible examples and active teaching atmosphere should be created to prevent students from falling into misconceptions.

Suggestion for Further Studies

This research work is aimed at investigating the knowledge and attitude of the staff of Emmanuel Alayande College of Education, Oyo, Oyo state, Nigeria on the use of ozone layer depleting substances.

The following suggestions are raised for other research studies on this topic

- A. This research study is based on an academic environment; other researches should consider using industrial sectors/environment as the case study.
- B. Researches should be conducted on the knowledge and attitude of artisans that are involved in the use of ODS.

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