

## **An Investigation into Tertiary Institutions' Environmental Conditions: A Case Study of Federal College of Education, Abeokuta, Ogun State, Nigeria**

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### **Abstract**

*The study investigated the environmental conditions of Federal College of Education, Abeokuta, which is one of the tertiary institutions and the oldest in Ogun State. Four research questions were formulated. Population of the study consisted of all students within the college premises. Data were collected with questionnaire. Simple percentage statistics was used to analyze the data collected. The findings revealed the various methods of waste disposal adopted by students in the college such as the use of refuse bins, burning, "throwaway" methods among others. Also the reasons for poor waste disposal were identified such as lack of adequate refuse bins, insufficient cleaning equipment and materials, delays in the collection of waste for disposal by the authorities etc. The study further revealed the effects of improper waste disposal on the environment to include air pollution, unsightly environment, breeding places for vectors among others. Finally, possible strategies for improvement were recommended which includes provision of large waste bins to cater for the large quantity of waste generated and giving regular orientation to students on the importance of sustainable clean environment.*

### **Introduction**

A good, conducive, safe, healthy, beautiful and attractive environment does not happen by chance, it is a product of effective planning, execution and management of a well evaluated environmental policy and maintenance of the environment by individuals who own or manage the physical outlook of an environment. Environment can be defined as a system within which living organisms interact with the physical elements. Agusiegbe (2004) sees environment as consisting of all elements existing around human and which exert some influence on him. These include physical, biological and social attributes. Environment can be seen as the aggregate of all external conditions and influence affecting the life and development of an organism. The external or physical environment is one of the easiest ways to learn and understand. Its influences are obvious in nature and comprise of such things as lighting, flooring, furniture, architecture and so on. It can also encompass layout and spaces, accessibility and cleanliness as well as interior colour schemes.

The school or learning environment is the thread that connects the multitude of activities in a school. In many respects, this thread is almost invisible, yet everyone experiences its influence. Dudek (2000) opined that it could be said to be the external influences in a school environment that influence the academic achievement of students irrespective of their intelligence quotient. The physical appearance and general condition of an academic institution's physical facilities are the striking basics upon which many parents and friends of any educational institution make initial judgment about the quality of what goes on in the institution. They are often turned off by dilapidated blocks with sinking roofs and broken walls, bushy lawn and overgrown edges. Also are profane writings on walls, littered lawn and pathways. Finally, the physical environment is like a mirror reflecting the image of a school and through it, the public decides whether or not to associate with the particular school (Mgbodile, 2004).

This research work is focused on assessment of the physical environmental conditions of an academic institution, in this case, Federal college of education, Osiele, Abeokuta, Ogun state. Assessing an environment involves analyzing and evaluating the physical components of the environment. In order to successfully assess an environment, certain criteria have to be evaluated. These criteria include the waste management system, water management system, air and noise pollution, beautification of the environment, visual intrusion, ecosystem disturbances, soil and so on. Processes like environmental screening, environmental scoping, desktop studies, physical inspection, reports are adopted in order to effectively evaluate the environment.

### **CONCEPT OF ENVIRONMENT**

An environment is the natural surroundings of an organism and it can be land, air or water (Asogwa 2008). According to Onyehalu in Okeke (2001), environment is of three parts namely; physical, social and abstract. Physical environment is objects or materials found in the home, school or community. It also includes the people like parents, peers and children. The social environment is the social life, societies, clubs among others. While abstract environment is the reactions, feedbacks, responses received on interaction with others.

Environment is the physical world inhabited by human, or the realm of nature untainted by human action, or the cultural milieu – the physical environment as modified by human action (Ofomata 2004). It could also be seen as things around human that he might perceive or that might have some effects on him. It can be viewed as all systems of air, land, water and life that surround man. In other words, environment is the sum total of all the external conditions which may act upon an organism or community to influence its development or existence. For example the surrounding air, light, moisture, temperature, wind, soil and other organisms. As for Monkhouse, in Ofomata (2004), it is the whole sum of the surrounding external conditions within which an organism, a community or an object exists. A healthy and attractive learning environment makes for conducive learning, and promotes students pride in their institution and their interest to stay in it (Mgbodile 2004). Belanger (1996) writing on the importance of learning environment stated that people's educational life histories are influenced not only by provision of learning opportunities, but also by the quality of the environment where they live or learn. The school environment – wall, ground, lights and mechanical system can serve as active contributors to the student's learning process (Keep, 2002).

### **METHODS OF ENVIRONMENTAL ASSESSMENT**

The guide to environmental assessment was developed formally in the 1970's and has been incorporated in the procedures of governments and major development organizations worldwide. Assessing an environment physical outlook especially aspects related to human activities is becoming increasingly important as physical activity recommendations focus on active living and incorporating moderate intensity activity into daily life (Pikora et al, 2002)

The growing body of research investigating the relationship between the physical environment and physical activity has identified a range of factors associated with human activities and behaviours (Gebel et al 2005). Assessment of the physical environmental conditions of an institution is very important as it:

- i. Evaluates interventions targeting the environment
- ii. Identify aspects of the physical environment requiring change
- iii. Increase awareness of an issue related to the physical environment requiring change
- iv. Identify issues and generating solutions within the institution.
- v. Research environmental determinants of active living.

There are several methods and strategies that can be used to assess the environment. Some of the methods include (i) Environmental screening (ii) Environmental scoping (iii) Desktop study and (iv) Site assessment and Public participation.

There are several factors that are to be considered when evaluating an environment. These factors include the following: Waste management, water management, noise pollution and ornamental environment.

### **PURPOSE OF THE STUDY**

The major purpose of this research work was to critically evaluate and assess the physical environmental condition of Federal College of Education, Osiele, Abeokuta, Ogun State and to shed more light on how the environment can be well managed.

### **RESEARCH QUESTIONS**

To achieve the objectives of this study, the following research questions were addressed.

1. How is waste managed in the environment of Federal College of Education, Abeokuta?
  - a) How is waste disposed in the area?
  - b) How is the final solid waste disposal site managed?
  - c) Is there poor waste management in the area?
  - d) What are the effects of improper waste disposal method?
  - e) What are the possible strategies for improvement?
2. How is water being managed in the study area?
3. How is noise being managed in the study area?
4. How is the ornamental environment being managed in the study area?

### **RESEARCH METHODOLOGY**

#### **RESEARCH DESIGN**

The design for this study is descriptive survey. It is to provide the opinion of the respondents on the physical environmental conditions of Federal College of Education, Osiele, Abeokuta

#### **POPULATION AND SAMPLE**

The target population consists of all students of Federal College of Education, Osiele, Abeokuta. The respondents used in this study were randomly selected. The sample size of the study was 340 respondents. Simple random sampling technique was used in selecting 200 students from the halls of residence 1 – 4 and 10 respondents each from 14 other units of the college. The other units include: residential area, Model secondary school, FCE staff school, Medical centre, Administrative and Bursary Buildings, Library, Lake, CEDEP, CESAPREP, School of Arts and Social Sciences, School of Education, School of Science, School of Languages and School of Vocational Studies

#### **INSTRUMENTATION**

The instrument for data collection was questionnaire titled “the physical environmental conditions of Federal College of Education, Abeokuta”.

The instrument was developed by the researcher. It consisted of two parts. Part A of the questionnaire provides information on personal data of the respondents while part B centered on the request for the respondents to complete the questionnaire meant to answer the research questions of clusters of 40 item posed for the study. The instrument was subjected to face and content validation by experts in the field of educational research, environmental education and measurement and evaluation and corrections were effected appropriately.

**METHOD OF DATA ANALYSIS**

Frequency tables and percentages were used to analyse the data collected .

**PRESENTATION OF RESULTS**

RESEARCH QUESTION 1: HOW IS WASTE MANAGED IN THE ENVIRONMENT OF FEDERAL COLLEGE OF EDUCATION, ABEOKUTA?

**A. HOW RESPONDENTS DISPOSE WASTE.**

**Table 1:** showing the percentage ratings of the data collected on how waste is being disposed in the college.

S/N	ITEMS	SA	A	D	SD	TOTAL
1.	Dumping in bushes.	145 (42.7%)	76 (22.4%)	50 (14.7%)	69 (20.2%)	340 (100%)
2.	Waste baskets/ drums.	145 (42.5%)	151 (44.4%)	40 (11.7%)	4 (1.2%)	340 (100%)
3.	Controlled dumpsites.	127 (37.4%)	107 (31.5%)	77 (22.6%)	29 (8.5%)	340 (100%)
4.	Gutters/ streams.	103 (30.3%)	47 (13.8%)	113 (33.2%)	77 (22.6%)	340 (100%)

The results in table 1 above revealed that 221 (65%) of the respondents agreed to item 1 while 119(35%) disagreed. This indicates that most students in the college disposed their wastes by dumping in bushes. 296 (87%) of the respondents agreed to item 2 while 44 (13%) disagreed. This shows that more students in the college disposed their wastes in waste baskets. 234 (69%) of the respondents agreed to item 3 while 106 (31%) disagreed. It implies that the students in the college make use of controlled dumpsites to dispose their wastes. 150 (44%) agreed to item 4 while 190 (56%) disagreed to it. This shows that the students do not make use of gutters and streams in disposing their wastes.

**B. HOW THE FINAL DISPOSAL SITE IS MANAGED**

**Table 2:** showing the percentage ratings of the data collected on how the final disposal site in the college is being managed.

S/N.	ITEMS	SA	A	D	SD	TOTAL
5.	By burning of waste materials	196 (57.7%)	82 (24.1%)	26 (7.6%)	36 (10.6%)	340 (100%)
6.	By burial of waste materials.	54 (15.9%)	169 (49.7%)	97 (28.5%)	20 (5.9%)	340 (100%)
7.	Abandoned.	62 (18.2%)	67 (19.7%)	137 (40.3%)	74 (21.8%)	340 (100%)
8.	Evacuation of refuse.	114 (33.5%)	104 (30.6%)	63 (18.5%)	59 (17.4%)	340 (100%)

The results in table 2 above shows that 278 (82%) respondents agreed to item 5 while 62 (18%) disagreed. This implies that the dumpsites are usually managed by burning of waste materials. 223 (66%) of the respondents agreed to item 6 while 117(34%) disagreed. This shows that wastes are

sometimes buried. 129 (38%) of the respondents agreed to item 7 while 211 (62%) disagreed. This shows that it is agreed upon that the wastes are never abandoned. 218 (64%) of the respondents agreed to item 8 while 122 (36%) disagreed. This indicates that evacuation of refuse is also practiced in the college.

### C. REASONS FOR POOR WASTE DISPOSAL

**Table 3:** showing the percentage ratings of the data collected on reasons for poor waste disposal in the college.

S/N.	ITEMS	SA	A	D	SD	TOTAL
9.	Lack of adequate waste disposal facilities.	218 (64.1%)	81 (23.8%)	30 (8.8%)	11 (3.3%)	340 (100%)
10.	Ignorance of waste management techniques.	131 (38.5%)	150 (44.1%)	48 (14.1%)	11 (3.3%)	340 (100%)
11.	Insufficient cleaners.	172 (50.6%)	49 (14.4%)	101 (29.7%)	18 (5.3%)	340 (100%)
12.	Ignorance on the importance of a clean environment.	138 (40.6%)	106 (31.1%)	39 (11.5%)	57 (16.8%)	340 (100%)

The results in table 3 above shows that 299 (88%) respondents agreed to item 9 while 41 (12%) disagreed. This implies that lack of adequate waste disposal facilities is a reason for poor waste disposal in the college. 281 (83%) of the respondents agreed to item 10 while 59(17%) disagreed. This shows that ignorance of waste management techniques is also a contributing factor to poor waste disposal in the college. 221 (65%) of the respondents agreed to item 11 while 119 (35%) disagreed. This shows that it is agreed upon that insufficiency of cleaners is also a reason for poor waste disposal in the college. 244 (72%) of the respondents agreed to item 12 while 96 (28%) disagreed. This indicates that ignorance on the importance of a clean environment is a reason for poor waste disposal in the college.

### D. EFFECT OF IMPROPER WASTE DISPOSAL METHOD

**Table 4:** showing the percentage ratings of the data collected on the effects of improper waste disposal method in the college.

S/N	ITEMS	SA	A	D	SD	TOTAL
13.	Air pollution.	239 (70.3%)	80 (23.5%)	13 (3.8%)	8 (2.4%)	340 (100%)
14.	Breeding of mosquitoes and rodents.	191 (56.2%)	87 (25.6%)	50 (14.7%)	12 (3.5%)	340 (100%)
15.	Increase in the spread of disease.	128 (37.6%)	137 (40.3%)	67 (19.7%)	8 (2.4%)	340 (100%)
16.	Unsightly environment.	132 (38.8%)	131 (38.5%)	49 (14.4%)	28 (8.2%)	340 (100%)

The results in table 4 above shows that 319 (94%) respondents agreed to item13 while 21 (6%) disagreed. This implies that an improper waste disposal method can cause air pollution in the college. 278 (82%) of the respondents agreed to item 14 while 62(18%) disagreed. This shows that an improper waste disposal method can lead to the breeding of mosquitoes and rodents in the college. 265 (78%) of the respondents agreed to item 15 while 75 (22%) disagreed. This shows that it is agreed

upon that an improper waste disposal method could lead to an increase in the spread of diseases in the college. 263 (77%) of the respondents agreed to item 16 while 77 (23%) disagreed. This indicates that an improper waste disposal method could lead to an unsightly environment in the college.

### E. POSSIBLE STRATEGIES FOR IMPROVEMENT

**Table 5:** showing the percentage ratings of the data collected on the possible strategies for improvement of waste management in the college.

S/N	ITEMS	SA	A	D	SD	TOTAL
17.	Provision of adequate waste disposal facilities.	218 (64.1%)	75 (22%)	23 (6.8%)	24 (7.1%)	340 (100%)
18.	Prompt collection and disposal of waste.	132 (38.8%)	131 (38.5%)	53 (15.6%)	24 (7.1%)	340 (100%)
19.	Organizing environmental education seminars.	141 (41.5%)	110 (32.4%)	80 (23.5%)	9 (2.6%)	340 (100%)
20.	Disposal of waste at the appropriate place not on the road side	125 (36.8%)	102 (30%)	75 (22.1%)	38 (11.1%)	340 (100%)

The results in table 5 above shows that 293 (86%) respondents agreed to item 17 while 47 (14%) disagreed. This implies that provision of adequate waste disposal facilities will improve waste management in the college. 263 (77%) of the respondents agreed to item 18 while 77(23%) disagreed. This shows that prompt collection and disposal of waste will improve waste management in the college. 251 (74%) of the respondents agreed to item 19 while 89 (26%) disagreed. This shows that it is agreed upon that organizing of environmental education seminars can improve waste management in the college. 227 (67%) of the respondents agreed to item 20 while 113 (33%) disagreed. This indicates that disposal of waste at the appropriate place can bring about improvement in the management of waste in the college.

### F. COLLEGE EFFORTS ON ENVIRONMENTAL MAINTENANCE

**Table 6:** showing the percentage ratings of the data collected on college efforts on environmental maintenance in the college.

S/N	ITEMS	SA	A	D	SD	TOTAL
21.	The college has established rules and regulations regarding the environmental maintenance of the college environment.	205 (60.3%)	72 (21.1%)	52 (15.3%)	11 (3.3%)	340 (100%)
22.	There are regular seminar/ programs on environmental maintenance on the campus.	100 (29.4%)	134 (39.4%)	81 (23.8%)	25 (7.4%)	340 (100%)
23.	There are ornamental plants around my unit and they are usually well kept.	131 (38.5%)	124 (36.5%)	59 (17.4%)	26 (7.6%)	340 (100%)
24.	Dump site around my unit are usually well maintained.	62 (18.2%)	162 (47.6%)	75 (22.1%)	41 (12.1%)	340 (100%)
25.	Generally, students show positive attitude towards the environment.	121 (35.6%)	60 (17.6%)	93 (27.4%)	66 (19.4%)	340 (100%)

The results in table 6 above shows that 277 (81%) respondents agreed to item 21 while 63 (19%) disagreed. This implies that the college has established rules and regulations regarding the environmental maintenance of the college environment. 234 (69%) of the respondents agreed to item 22 while 106(31%) disagreed. This shows that there are regular seminar/ programs on environmental maintenance on the campus. 255 (75%) of the respondents agreed to item 23 while 85 (25%) disagreed. This shows that it is agreed upon that there are ornamental plants around the college and they are usually well kept. 224 (66%) of the respondents agreed to item 24 while 116 (34%) disagreed. This indicates that dump sites are usually well maintained by the college.181 (53%) of the respondents agreed to item 25 while 159 (47%) disagreed. This indicates students show positive attitude towards the maintenance of the college environment.

**RESEARCH QUESTION 2: HOW IS WATER MANAGED?**

**Table 7:** showing the percentage ratings of the data collected on how water is managed in the college.

S/N	ITEMS	SA	A	D	SD	TOTAL
26.	Tap water is the most suitable and the main source of water in the college.	222 (65.3%)	87 (25.6%)	15 (4.4%)	16 (4.7%)	340 (100%)
27.	Water is readily available in the college.	112 (32.9%)	156 (45.9%)	58 (17.1%)	14 (4.1%)	340 (100%)
28.	The source of water is always treated.	114 (33.5%)	136 (40.0%)	73 (21.5%)	17 (5.0%)	340 (100%)
29.	The main source of water is in a clean environment.	83 (24.4%)	141 (41.5%)	96 (28.2%)	20 (5.9%)	340 (100%)
30.	Water usage should be regulated so as to prevent water shortage.	146 (42.9%)	78 (22.9%)	67 (19.7%)	49 (14.4%)	340 (100%)

The results in table 7 above revealed that 309 (91%) of the respondents agreed to item 26 while 31(9%) disagreed. This indicates that it is generally agreed upon that tap water is the most suitable source of water in the college. 286 (79%) of the respondents agreed to item 27 while 72 (21%) disagreed. This shows that water is readily available in the college. 250 (74%) of the respondents agreed to item 28 while 90 (26%) disagreed. It implies that the college source of water is agreed to be always treated. 224 (66%) agreed to item29 while 116 (34%) disagreed to it. This shows that the college source of water is in a clean environment. 224 (66%) of the respondents agreed to item 30 while 116 (34%) disagreed. This implies that it is agreed that water usage should be regulated so as to prevent water shortage in the college.

**RESEARCH QUESTION 3: HOW IS NOISE MANAGED?**

**Table 8:** showing the percentage ratings of the data collected on how noise is managed in the college.

S/N	ITEMS	SA	A	D	SD	TOTAL
31.	Public address systems are the major source of noise in the college.	151 (44.4%)	85 (25.0%)	53 (15.6%)	51 (15.0%)	340 (100%)
32.	Noise in the college is also caused by the vehicles moving around in the college.	84 (24.7%)	151 (44.4%)	74 (21.8%)	31 (9.1%)	340 (100%)
33.	Noise affects the learning activities of students in the college.	152 (44.7%)	73 (21.5%)	96 (28.2%)	19 (5.6%)	340 (100%)
34.	It is a lright to tolerate noise for a very long time.	70 (20.6%)	98 (28.8%)	99 (29.1%)	73 (21.5%)	340 (100%)
35.	There are regulations to curb noise in the college.	99 (29.1%)	85 (25.0%)	70 (20.6%)	86 (25.3%)	340 (100%)

The results in table 8 above shows that 236 (69%) respondents agreed to item31 while 104 (31%) disagreed. This proves that public address systems are the major source of noise in the college. 235 (69%) of the respondents agreed to item32 while 105(31%) disagreed. This shows that noise in the college is also caused by vehicles moving around in the college. 225 (66%) of the respondents agreed to item 33 while 115 (34%) disagreed. This shows that it is agreed upon that noise affects the learning activities of students in the college. 168 (49%) of the respondents agreed to item 34 while 172 (51%) disagreed. This indicates that it is not alright to tolerate noise for a long time. 184 (54%) of the respondents agreed to item 35 while 156 (46%) disagreed. This implies that there are regulations to curb noise in the college.

**RESEARCH QUESTION 4: HOW IS THE ORNAMENTAL ENVIRONMENT MANAGED?**

**Table 9:** showing the percentage ratings of the data collected on how the ornamental environment of the college is managed.

S/N	ITEMS	SA	A	D	SD	TOTAL
36.	Ornamental plants beautify the college environment.	239 (70.3%)	76 (22.3%)	17 (5.0%)	8 (2.4%)	340 (100%)
37.	Ornamental plants are surplus in the college environment.	89 (26.2%)	170 (50.0%)	67 (19.7%)	14 (4.1%)	340 (100%)
38.	Ornamental plants in the college are well trimmed and are attractive.	115 (33.8%)	110 (32.5%)	92 (27.1%)	23 (6.7%)	340 (100%)
39.	The college encourages Afforestation of ornamental plants.	59 (17.4%)	124 (36.5%)	107 (31.5%)	50 (14.7%)	340 (100%)
40.	Ornamental plants in the college are usually well maintained and manage.	140 (41.1%)	71 (20.9%)	80 (23.5%)	49 (14.4%)	340 (100%)

The results in table 9 above shows that 315 (93%) respondents agreed to item36 while 25 (7%) disagreed. This proves that ornamental crops beautify the college environment. 259 (76%) of the respondents agreed to item 37 while 81(24%) disagreed. This indicates that ornamental crops are surplus in the college environment. 225 (66%) of the respondents agreed to item 38 while 115 (34%) disagreed. This shows that ornamental plants in the college are well trimmed and are attractive. 183 (54%) of the respondents agreed to item 39 while 157 (46%) disagreed. This indicates that the college encourages Afforestation of ornamental plants. 211 (62%) of the respondents agreed to item 40 while 129 (38%) disagreed. This implies that ornamental crops in the college are usually well maintained and manage.

**DISCUSSION OF RESULTS**

Proper waste control strategies are required to maintain clean and healthy environment. Connect (1990) as cited by Anyakoha and Igboeli, (1993) ranked a clean and beautiful environment first out of ten basic human needs which include a clean and adequate supply of water, simple clothing, food, health care, communication, simple housing, energy requirement, total education etc. According to them, these other basic human needs have direct or indirect bearing to the environment. However, due to the methods of disposing waste by the students in the college, sustainable clean and beautiful environment cannot be achieved. The study therefore identified methods of waste disposal used by the students. These include; use of refuse bin, burning and burying. The study also indicated reasons

for poor waste management such as poor waste disposal facilities, ignorance of the importance of clean environment and waste disposal techniques, among others.

Another reason identified is the increase in students' population in the college, which influences the rate of waste generation of refuse. They also pointed out that where the increased rate of waste generation is not matched by a rapid and efficient disposal system, problem of waste disposal such as pollution of air, water and land are bound to occur. It was also discovered from the study that the greatest effects of improper waste disposal are air pollution, unsightly environment, breeding places for mosquitoes and other insects. Abazu (2005) noted that the consequences of indiscriminate disposal of waste could be a problem to public health. She opined that improper waste disposal in the home creates forum for breeding of mosquitoes and flies, which encourages diseases like typhoid, dysentery, diarrhea, malaria etc. Citing Kumar (2005), she opined that the survey of health hazards of the human environment suggests the provision of basic sanitation facilities. Furthermore, some possible strategies were identified to improve waste disposal in order to enhance clean and beautiful environment within the college surroundings. This is because the ultimate aim of waste control is to minimize waste and thus create a healthy environment achieves healthy or protective family or home. Thus Anyakoha (1993) emphasized the need for good quality refuse bin and stressed that bins should be properly covered always and kept clean by washing thoroughly each time they are emptied. The findings therefore indicated that that students disposed waste appropriately and only on places meant for it. Findings also revealed that since waste is disposed promptly, weekly exercise should be mapped out for students and attendants. This is necessary to ensure that all the surroundings are kept neat and clean.

## **CONCLUSION**

The following are the conclusions derived from the findings

1. Waste baskets and controlled dumpsites are the major ways of disposing wastes in the college.
2. Burning of waste materials is the major method used in managing the final disposal site in the college.
3. Lack of adequate waste disposal facilities is the main cause of poor waste disposal in the college.
4. Air pollution and increase in spread of diseases are the major effects of improper waste disposal method used in the college.
5. Tap water is mostly used in the college and is the readily available source of water.
6. Public address devices and vehicles cause a larger portion of the noise in the college.
7. The college does not really encourage afforestation/reforestation of trees.

## **RECOMMENDATIONS**

Based on the findings, the following recommendations were made:

1. The college needs large waste bins because of the quantity of waste generated to avoid overflowing of waste which makes the waste collection site unsightly.
2. There is need of placing waste bins at various points where they can be easily located in the college premises so that refuse such as paper, pure water sachets can be easily disposed of rather than littering them around the premises.

3. Students should be given adequate orientation on the importance of maintaining sustainable clean environment through seminars and workshops. This will help to eliminate the danger of indiscriminate littering of the compound that presently characterizes their lifestyles
4. Environmental education should be included into the general course curriculum to help students have better understanding of the environment and teach them ways of reducing waste such as refuse and recycling of materials.
5. The college should provide adequate evacuation facilities such as barrows and tippers or trucks to facilitate easy evacuation of waste.

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