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**MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY**  
**UNIVERSITY OF DAR ES SALAAM**  
**DAR ES SALAAM UNIVERSITY COLLEGE**  
**OF EDUCATION**



**ENVIRONMENTAL POLICY AND OPERATIONAL PROCEDURES**

**OCTOBER 2023**

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## **ABBREVIATIONS AND ACRONYMS**

CMMS	Computerised Maintenance Management Systems
DUCE	Dar es Salaam University College of Education
EMA	Environmental Management Act
GHG	Greenhouse Gases
ICT	Information and Communication Technology
M&E	Monitoring and Evaluation
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PPM	Parts per Million
SDGs	Sustainable Development Goals
TCU	Tanzania Commission of Universities
TWA	Time-Weighted Average Concentration.
WHO	World Health Organisation

## **FOREWORD**

The Dar es Salaam University College of Education (DUCE) is a public institution established in 2005 through the Government Notice No. 202 published on 22<sup>nd</sup> July 2005. The establishment of the College was a priority response by the Government of Tanzania to address the problem of acute shortage of graduate teachers and experts in the education sector that had resulted from the rapid expansion of school enrolment. Since its inception, the College has produced more than 16,000 graduate teachers. Apart from -related programmes, the College has currently introduced non-teacher-related programmes at Bachelor's and Master's levels.

Since its establishment in July 2005, DUCE has been operating without its own environmental policy. This has resulted in difficulty in addressing emerging environmental challenges, particularly climate change impacts; e-waste management; environmental pollution from human activities; sound management of chemicals; the application of modern biotechnology; and the prevention of various diseases and calamity occurrences.

For the College to ensure environmental conservation and the sustainable use of natural resources, it needs an effective operational policy to guide and direct environmental management. Thus, the introduction of effective Environmental Policy is important. Therefore, this Policy serves as an institutional framework for the planning and sustainable management of the environment, in a coordinated, holistic, and adaptive approach that takes into consideration prevailing and emerging environmental challenges.

The College will continually review, improve, and develop this Environmental Policy and will commit to its implementation. This includes full compliance with local and national legislation and guidance, and the integration of the Policy into decision-making at all levels and in all departments.

Prof. Stephen Oswald Maluka

**PRINCIPAL**

October 2023

## **ACKNOWLEDGEMENTS**

Development of the Environmental Policy and Operational Procedures has been a joint effort. I would like to acknowledge the contributions of the Team members, comprising Dr. Saming’o Sangeti, Dr. Awe Baltazar, Mr. Kennedy Kituye, Ms. Mwanjaa Mruma, and Eng. Mashaka Malalo. The Team worked tirelessly in the development of this Policy and its Operation Procedures, collected stakeholders’ inputs and presented the Policy to various College participatory organs. Furthermore, I would like to acknowledge all College staff and other stakeholders who took the time to review the drafts and provide their valuable input for the improvement of the Policy.

I would also like to acknowledge the contribution of the College Principal, Prof. Stephen Oswald Maluka, for his guidance and insights as the overall College leader. In the same vein, I acknowledge the contribution of Dr. Christina Raphael Isingo, the Deputy Principal (Academic, Research and Consultancy), for providing inputs on her areas of jurisdiction. Her inputs have made the Policy more relevant and acceptable in terms of its applicability.

I take this opportunity to urge all members of the College community to read the Policy and ensure its implementation. I also urge all relevant College Units and Departments that have the mandate to implement the Policy to ensure it is implemented to achieve the College goals, objectives, and core mission and vision.

Prof. Method Samwel Semiono

**Deputy Principal (Planning, Finance And Administration)**

October 2023

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background Information

The Dar es Salaam University College of Education (DUCE) is a public institution established in 2005 through the Government Notice No. 202 published on 22<sup>nd</sup> July 2005. The College was established as a Constituent College of the University of Dar es Salaam through Government Notice No. 166 published on 23<sup>rd</sup> April 2010 in accordance with the Universities Act, 2005 and the University of Dar es Salaam Charter, 2007. Subsequently, DUCE was granted its Charter on 18<sup>th</sup> August 2010 by the President of the United Republic of Tanzania. Also, the College acquired the Certificate of Full Registration on 27<sup>th</sup> September 2012, and following the establishment of the Tanzania Commission of Universities (TCU), which required all higher learning institutions to be accredited by the Commission, the College was accredited on 19<sup>th</sup> June 2019. The College is solely owned by the Government of the United Republic of Tanzania.

The College Campus is located on Plot 324 and 325 Block 'T' Chang'ombe in Temeke Municipality, Dar es Salaam Region, adjacent to the Benjamin Mkapa National Stadium and about 5 kilometres from the City Centre via Kilwa Road. The College consists of 52.97 acres of land. In addition, the College owns a 1.17-hectare area on Plot No. 964/1, Block 'V', Mbagala (about 15 kilometres from the Main Campus). Almost the whole area is developed, leaving only a few pockets for infill development. All developments carried over at the College from 2018 have been guided by the College Master Plan 2018-2038.

The College had a total of 577 staff by June 2023, of whom 248 were females (43%) and 329 were males (57%). Undergraduate students' enrolment has been increasing during the past 16 years, whereby enrolment has increased from 529 in 2005/2006 during the establishment of the College to 5,741 in 2022/2023. By June 2023, postgraduate students' enrolment stood at 151. Among the enrolled students, 53 have special needs. The College population also includes a nursery school with 110 pre-school children aged four to five years, 942 pupils in primary school, and 568 students at Secondary School. Therefore, the College's population of 7,464 as at June 2023 needs to be healthier in order to spearhead the achievement of the College's objectives.

The core functions of the College are to provide higher education, conduct research, and provide public service. To achieve these functions, which are enshrined in its vision, mission, and core values, the College needs a conducive physical environment. Hence, the College Management intends to have in place its Environmental Policy, which will help guide the College on environmental management issues. The Policy can also help the government's efforts to protect the environment by promoting awareness to its community on environmental sustainability, preventing or reducing harmful effects of human activities (College operations) on the environment and ecosystems.

The College Environmental Policy is well aligned with environmental sustainability in line with the Sustainable Development Goals (SDGs), especially 6, 7, 11, and 13, which aim to ensure clean water and sanitation, affordable and clean energy, sustainable cities and communities, and climate action, respectively. The Policy also aligns with the National Environmental Policy

of 2021, which identifies eight major environmental problems that require serious attention. These include land degradation, deterioration of water sources, loss of wildlife habitats and biodiversity, deterioration of aquatic ecosystems, deforestation, environmental pollution, climate change, and the safe use of modern biotechnology. At the College level, the Policy is consistent with the Rolling Strategic Plan (2021/2022 - 2025/2026), Estates Policy (2018), College Master Plan (2018-2038), Health Policy (2022), Gender Policy (2016), Risk Management Policy (2020), and Risk Register and Disaster Recovery Policy (2022).

## **1.2 Situation Analysis**

There is an increased level of consciousness regarding the complex relationship between development and the quality of the environment, and the College community is no exception in this regard. However, various environmental problems hinder the College's efforts to attain green campus status and a disease- and calamity-free environment. The main areas of concern include: inadequate physical facilities; waste management challenges; vegetation loss and land degradation; inadequate water supply; environmental pollution (air, soil, and noise pollution); unsustainable energy use; food hygiene challenges; and unfriendly environmental behaviour amongst DUCE community members. These issues are explained in detail in the following subsections.

### **1.2.1 Physical Facilities**

The availability and adequate utilisation of the physical facilities has a significant influence on students' academic performance, effective instructional delivery and proper functioning of the College in achieving educational goals and objectives. On the other hand, physical facilities have an important influence on people's health and well-being. It provides shelter, safety, security and privacy. Building design codes regulate room sizes, ventilation, ceiling heights, and the number of occupants. Inadequate provision, design, and poor conditions of physical facilities can lead to overcrowding, poor ventilation, poor lighting, and poor public health at the college. The condition of the College's physical facilities appears to be a major concern for students and staff. These facilities include classrooms, offices, libraries, laboratories, and recreational areas, among others, which seem to be inadequate in quantity and quality, and unfriendly to people with special needs, as well as to cope with the rapidly growing College population. The current College population and prospective enrolment of students are about 7,818 people. The available infrastructure can accommodate about 5000 people; hence, teaching activities are usually overstretched to fit in all programmes. Often, students and staff are required to arrive very early in the morning and leave the campus very late in the evening, a situation which may hamper their security. Therefore, infrastructure to accommodate the remaining number of people needs to be constructed.

### **1.2.2 Waste Management**

Waste management, including solid, electronic, and liquid waste, is an important element of environmental protection. Its purpose is to provide hygienic, efficient, and cost-effective waste collection, storage, transportation, and treatment or disposal, without polluting the environment. Annually, the College generates about 480 tons of solid waste, 1.08 tons of hazardous waste, and 2,708,000 litres of liquid/sewage waste. Inappropriately managed waste not only creates an unattractive scene but also leads to environmental contamination and may expose the community to various diseases.

The waste management system at the College initially sorts harmful and non-harmful waste. The liquid waste is connected to soakaway pits through a network of underground pipes. All waste collected and sorted from the college is transported by a contracted company to designated disposal sites. Liquid waste from soakaway pits is also transported to stabilisation ponds. Despite the existence of such a system, it is not very effective at coping with the fast-growing College population due to outdated infrastructure, a large volume of waste, and emerging waste streams that require specialised management technologies. For better performance, the liquid waste management connection to the public sewer will be the ultimate solution.

### **1.2.3 Environmental Pollution**

Environmental pollution involves the unwarranted disposal of mass or energy into earth's natural resource pool, such as water, land, or air, resulting in long- or short-term detriment to the atmosphere and its ecological health, negatively impacting living beings and their lives, both quantitatively and qualitatively. The pollutants may yield primary or secondary damages, of which the primary damage can be quantified and its impact monitored. The secondary damage, on the other hand, occurs as a marginal disturbance to the delicately poised biological food web pyramid balance and can be noticed only over prolonged durations. The following subsections describe in detail three main types of environmental pollution.

#### **1.2.3.1 Soil Pollution**

Soil pollution mainly results from the penetration of harmful substances, such as industrial/laboratory by-products, pesticides and insecticides, improper sewage system management, and fuel leaks from automobiles. Increased soil pollution leads to increased soil salinity, making it unfit for vegetation growth, including crop cultivation. Even when some crops and other vegetation manage to grow, the harmful pollutants may enter the food chain and, when ingested, cause health problems for both grazing animals and humans. Soil pollutants may contain heavy metals that have carcinogenic potential when consumed in food and drinking water.

Facilities owned by the college, including laboratories, frequent use of insecticides, old and defective sewerage systems, and leakage from staff-owned motor vehicles, place the College at increased risk of experiencing soil pollution.

#### **1.2.3.2 Noise pollution**

Noise pollution can negatively impact human labour efficiency and health, including triggering high blood pressure and mental stress. Noise pollution may be associated with the design of buildings that do not take environmental sustainability seriously, such as offices, classrooms, and hostels. It may also come from ongoing construction, exploding materials, or constantly running radios, music systems, and TV sets at high volumes, to mention just a few. The College is in proximity to Benjamin Mkapa National Stadium, Inland Container Depot, Bus Stops, and Mgulani Barracks, where daily activities are usually associated with the production of high levels of noise. Stadiums can reach up to 140 decibels, while OSHA allows 8 hours of exposure to 90 decibels. Such proximity exposes the College community to an increased risk of noise pollution, and in this case, OSHA requires the employer to begin controlling the noise.

### **1.2.3.3 Air pollution**

The world is currently witnessing the impacts of air pollution, including health-related problems like breathing, reduced lung function and development of cancer, especially of the respiratory system. Furthermore, accelerated air pollution had a negative impact on the environment by damaging crops and forests and by increasing greenhouse gas (GHG) emissions into the atmosphere, which will lead to the destruction of the ozone layer and enhanced global warming, culminating in climate change. Air pollution has become one of the environmental challenges surrounding the College due to the haphazard burning of waste, including plastics, paper, and petroleum fuels, from industries and motor vehicles. According to the Occupational Safety and Health Administration (OSHA), the permissible exposure limit (PEL) for carbon dioxide is 5000 parts per million (ppm) as an 8-hour time-weighted average (TWA) concentration.

Although the concentration of carbon dioxide in the College environment is not known, the College locality gives the impression of a clear increased risk of air pollution. Therefore, measures to reduce air pollution are necessary to contribute to the overall reduction of air pollution.

### **1.2.4 Water Supply, Sanitation, and Hygiene**

Water supply, sanitation and hygiene are necessary for the attainment of better health, education, nutrition and other indices of human development. Water supply for the college community comes from three boreholes, with a capacity to produce about 211,200 litres/day. These boreholes are interconnected with several reservoir tanks for storage before end use. The water supplied from these boreholes is mainly for sanitary, laboratory, cooking, and gardening purposes. Power supply interruptions and pump failures often disrupt the continuous supply of water from the boreholes. The water resource management report (July 2019) indicated that the college had a deficit of 178,000 litres/day to meet its daily need. The deficit is likely to have increased due to an increase in the college population. Additionally, all water supplies used for human consumption are required to meet standards set by the World Health Organisation (WHO), being free from micro-organisms, parasites, and any chemical substances that may pose a danger to public health if found in sufficient concentrations. The water supplied at DUCE is in insufficient quantity and of unreliable quality, a situation that may pose serious problems for the College community by making it vulnerable to waterborne diseases such as dysentery, cholera, and typhoid fever, to mention just a few.

On the other hand, adequate sanitation services are necessary for ensuring dignity and achieving the human right to sanitation. They have an important gendered aspect due to the different needs of girls and boys in terms of privacy, dignity, and safety. The lack of adequate sanitation is a major cause of infectious diseases, such as cholera, typhoid, and dysentery. The pupil-to-latrine ratio is one of the standards set by the Government of Tanzania to measure the level of sanitation in education delivery. The agreed standard is at least one drop hole/stance for 20 girls, one drop hole for 25 boys, and special toilets for pupils with disabilities.

Additionally, hand-washing points should be available for every 100 pupils. The College has 391 flush toilets with hand-washing points. Although the toilets available at the College are designed for single sex use and for those with special needs, the number of persons to latrine and the number of hand washing facilities are below the standard set.

### **1.2.5 Vegetation Loss and Land Degradation**

Vegetation is generally a habitat and shelter for millions of species. It is also important for its aesthetic appeal. However, the vegetation on our planet is being depleted at a very fast rate. The College is not exceptional; it is experiencing vegetation loss due to land-clearing for the construction of buildings, playgrounds, and pathways, and prolonged drought periods. Vegetation loss may lead to land degradation in the form of enhanced soil erosion, disruption of the water cycle, loss of biodiversity, flooding, drought, and desertification, to mention just a few. The Urban Planning Act, 2007, requires organisations to preserve trees and prevent land degradation to attain sustainable development.

### **1.2.6 Clean Energy and Energy Use Efficiency**

Energy use efficiency aims to use less energy to maintain the same level of performance and comfort. The use of renewable energy sources contributes largely to sustainable development by preserving non-renewable energy sources like petroleum, which are vulnerable to depletion, and by reducing global warming and environmental pollution caused by the accumulation of petroleum combustion by-products like Carbon dioxide and Sulphur dioxide in the atmosphere. The College suffers from energy use, likely due to unawareness and irresponsible behaviour by stakeholders who leave on electric gadgets such as fans, lights, and air conditioners when it is not necessary. The aspect of sustainable energy use is a concern and is currently not utilised at DUCE. The National Energy Policy of Tanzania (2015) addresses the scaling the upscaling of the utilisation of renewable energy resources to ensure optimal benefits for Tanzanians and contribute to the transformation of the national economy.

### **1.2.7 Food Premises**

The College owns four canteen sheds with a capacity to serve about 147 people at a time. Within the canteen premises, there are kitchens, stores, preparation rooms, toilets, and staff changing rooms. The canteen sheds at the college do not conform to the College's layout standards, and the college does not comply with the layout standards for food premises. Additionally, the canteen sheds and other canteen-associated facilities are not only inadequate to serve the College community, but also lack a designated place for waste collection, sorting, and proper means of waste transportation to a disposal site without contamination. Similarly, some food handlers do not abide by the standards regulating food handling, thereby posing a significant risk of disease outbreaks to the College community. Measures to ensure a high level of hygiene in food storage, preparation, and serving are important to prevent outbreaks of diseases related to poor hygiene in food handling.

### **1.2.8 Unfriendly Environmental Behaviour**

Generally, it has been observed that there is environmentally unfriendly behaviour associated with environmental pollution. This behaviour includes trespassing on lawns, which later develop into gullies; poor handling of sanitary pads, causing frequent blockages of the sewage system; careless use of tap water, causing substantial loss and fouling the environment, as well as encouraging the harbouring of noxious insects like mosquitoes. In addition, some community members haphazardly throw items such as plastic bags and bottles into the surroundings, put posters/advertisements on unauthorised places, and use solid materials such as pieces of clothes and papers in flush toilets, causing blockages.

### **1.3 Legal and Policy Context**

The College Policy on Environmental Management guides the process of addressing environmental issues at the College as identified in Chapter Two. The Policy is in line with the National Environmental Policy of 1997 and the Environmental Management Act (EMA) No. 20 of 2004. Other instruments include the Public Health Act 2009, the Occupational Health and Safety Act (OSHA) 2003, and the Standards Act 2021.

### **1.4 Rationale**

Since its establishment in July 2005, the College has been operating without any guiding environmental policy, which has resulted in difficulty in addressing emerging environmental challenges, particularly climate change impacts; e-waste management; environmental pollution from human activities; sound management of chemicals, and the application of modern biotechnology.

For the College to ensure environmental conservation, sustainable use of natural resources, and the prevention of diseases and calamities. It needs a robust operational policy to guide and direct issues related to environmental management and disease and calamity prevention. It needs a robust operational policy to guide and direct environmental management issues. Therefore, this Policy serves as an institutional framework for the planning and sustainable management of the environment, in a coordinated, holistic, and adaptive approach that takes into consideration prevailing and emerging environmental challenges.

Also, the College has been implementing various environmental management activities. However, due to the absence of a policy document to guide implementation, there has been a problem of poor planning, coordination of implementation, and monitoring of achievement of required standards. Most of these activities have depended on the the College health officer's understanding, and on management's perception. Such a trend is unhealthy to the institution.

Moreover, there are various Acts and national-level policies on environmental management that the College is required to implement. However, the absence of the Policy and Operational Procedures that align with the Acts and national-level policies makes it difficult to exhaust all requirements therein and ensure their compliance and implementation. This puts the College at serious risk of compliance issues, audit queries, and loss of good public image.

## **1.5 Vision**

To become a role model higher learning institution with a sustainable, safe, clean and healthy environment.

## **1.6 Mission**

To provide policy guidance and oversight on environmental management for sustainable socioeconomic development at the College.

## **1.7 Objectives**

### **1.7.1 General Objective**

To provide a framework for addressing the present and future environmental challenges the College faces in its efforts to attain green status for the campuses.

### **1.7.2 Specific Objectives**

The following are specific objectives of the Policy: -

- i. To ensure the provision of adequate physical facilities to support the core functions of the College;
- ii. To ensure efficient and effective management of wastes;
- iii. To maintain standards in water supply, sanitation and hygiene;
- iv. To ensure effective conservation of environmental resources
- v. To ensure energy use efficiency;
- vi. To ensure compliance with various environmental-related acts and national-level policies; and
- vii. To ensure the development of environmental ethics and conservation attitudes among the College community members.

## **1.8 Scope of the Policy**

This Policy and its Operational Procedures are applicable to College staff, students, and other environmental stakeholders in addressing challenges in e-waste management, environmental pollution from human activities, sound management of chemicals, and the application of modern biotechnology.

## CHAPTER TWO

### 2.0 MAJOR AREAS, POLICY ISSUES, STATEMENTS AND STRATEGIES

#### 2.1 Physical Facilities

##### 2.1.1 Policy Issue

Inadequate physical facilities in quality and quantity to cope with the rapidly growing College population.

##### 2.1.2 Policy Statement

The College shall ensure the provision of adequate physical facilities at DUCE to promote public health and stimulate the learning and teaching environment.

##### 2.1.3 Strategies

The College shall ensure:

- i. Allocation of sufficient funds for construction and maintenance annually;
- ii. Availability of buildings and facilities accessible to people with special needs;
- iii. Standard student class size is maintained;
- iv. Use of Computerised Maintenance Management Systems (CMMS);
- v. Effective use of environmental assessment reports during the design of buildings and other facilities;
- vi. Periodic/routine maintenance of the physical facilities is carried out; and
- vii. Buildings constructed meet set standards.

#### 2.2 Efficient and Effective Waste Management

##### 2.2.1 Policy Issue

Lack of an effective and efficient system for waste management.

##### 2.2.2 Policy Statement

The College ensures the availability of an efficient and effective system for waste management.

##### 2.2.3 Strategies

The College shall ensure:

- i. Labelled waste bins (or colored) for different types of waste are placed in every building and emptied daily;
- ii. Redesign and maintain officially recognised dumping sites and discourage the use of unauthorised dumping places;
- iii. Awareness campaigns aimed at educating the College community on keeping the College surroundings clean and green are organised;
- iv. Record-keeping sheets are designed and administered for effective monitoring of contract implementation processes of the outsourced cleaning services;

- v. Establishment of a link with recycling companies to add value to various types of waste produced within the premises of DUCE;
- vi. Introduce water recycling for tree planting (or general irrigation) and having green zones;
- vii. Introduction of downpipes in all buildings and surface canals can avoid haphazard splashing by rainwater;
- viii. Drainage systems are in good condition all the time;
- ix. Rehabilitation of all existing washrooms is carried out regularly;
- x. Expansion of the existing liquid waste management infrastructure to cope with the increasing needs of the College; and
- xi. Utilisation of students and academic staff in researching the problem of waste and developing appropriate solutions.

### **2.3. Environmental Pollution (Soil, Air, Noise)**

#### **2.3.1 Policy Issue**

Lack of an efficient and effective mechanism for the management of environmental pollution.

#### **2.3.2 Policy Statement**

The College shall promote the efficient and effective management of environmental pollution.

#### **2.3.3 Strategies**

The College shall ensure:

- i. Specific car parking lots are designed and built to reduce the spread of soil pollutants;
- ii. New building design takes into consideration sound barriers;
- iii. Awareness-raising programmes and/or campaigns for the reduction of air, soil and noise pollution are conducted;
- iv. Ban or discourage open burning of leaves and any other pollution-generating material;
- v. classrooms, hostels, staff offices and residential houses being built according to standards; and
- vi. The use of loudspeakers on College premises, except for important meetings/functions, is regulated.

### **2.4 Water Supply, Sanitation and Hygiene**

#### **2.4.1 Policy Issues**

Water supply for the College community is inadequate in quantity and unreliable in quality. In addition, the sanitary and hygiene facilities do not match the College population size.

#### **2.4.2 Policy Statement**

The College shall ensure that water supply, sanitation and hygiene meet the set standards.

#### **2.4.3 Strategies**

The College shall ensure:

- i. supply of adequate and safe water throughout the year;

- ii. inspection and cleaning of boreholes is done once annually;
- iii. periodic assessment of water quality (at least annually) and provision of effective water treatment using modern technologies;
- iv. all water sources are protected from human or animal access by limiting their access;
- v. all water points are appropriate and accessible for younger pupils and people with disabilities;
- vi. availability of a functional hand-washing point with adequate clean water and soap located in a convenient and accessible location, including pupils with disabilities and of different heights to accommodate all pupils;
- vii. Standard person /latrine ratio is maintained; and
- viii. Availability of facilities in girls' latrines or hygiene units for sanitary pad collection and disposal.

## **2.5 Effective Vegetation Conservation**

### **2.5.1 Policy Issue**

Progressive shrinkage of vegetation within the College environment.

### **2.5.2 Policy statement**

The College shall ensure the effective conservation of vegetation in the College surroundings and in neighbouring communities.

### **2.5.3 Strategies**

The College shall:

- i. Establish an environmental day, which will be used to sensitise the community on environmental conservation;
- ii. Encourage the establishment of students' environmental clubs, which will be dealing with environmental awareness raising;
- iii. Design and run awareness-raising campaigns on the role of community members in controlling bush fires and other environmental threats within the college and the neighbouring communities;
- iv. Advocate for tree planting within the surroundings and the neighbouring communities;
- v. Ban haphazard tree cutting;
- vi. Establishing guidelines for gardening works in open areas within the college; and
- vii. Establish close links with the local government on environmental conservation matters.

## **2.6 Clean Energy and Energy Use Efficiency**

### **2.6.1 Policy Issue**

Inefficiency in energy use and non-utilisation of sustainable energy.

### **2.6.2 Policy Statement**

The College shall promote the use of clean energy and energy efficiency through conservation behaviour and the adoption of modern technologies.

### **2.6.3 Strategies**

The College shall:

- i. Raise awareness on the efficient use of energy among community members;
- ii. ensure structures and systems per the requirements of energy use efficiency are in place;
- iii. Introduce clean energy production and environmentally friendly technologies in appropriate processes; and
- iv. Adopt alternative sources of energy, such as solar energy infrastructure, biogas technology, and smart lighting.

## **2.7 Food Premises**

### **2.7.2 Policy Issue**

Non-conductive environment for food provision.

### **2.7.3 Policy Statement**

The College shall ensure that food handling premises meet the set standard.

### **2.7.3 Strategies**

The College shall ensure:

- i. Food handlers follow the rules related to food;
- ii. Availability of a good layout of food premises equipped with all necessary amenities; and
- iii. The cafeteria designs meet the required standards.

## **2.8 Development of Environmental Ethics and Conservation Attitude**

### **2.8.1 Policy Issue**

Environmentally friendly behaviour among the College community members.

### **2.8.2 Policy Statement**

The College shall cultivate good conduct and promote observance of environmental ethics in the areas of personal hygiene, public health, energy and water use efficiency, noise control, and promotion of a good aesthetic view.

### **2.8.3 Strategies**

The College shall:

- i. Abolish all informal shortcuts within and surrounding the environment;
- ii. Design awareness programmes and/or campaigns aimed to discourage informal walkways, practices leading to blockage of toilets and cultivate the habit of energy use efficiency;
- iii. Design and run awareness raising programmes to the community on the relevance and benefits of having a green environment;
- iv. Design outreach programmes to assist neighbouring schools and villages in promoting a green environment and promoting environmental health;

- v. Post banners at different places within the College surroundings, aiming to promote proper dumping of wastes, the use of formal walkways, and discourage informal walkways and littering behaviour;
- vi. Put small posters on the doors of public toilet rooms to provide specific guidance on proper use of the facilities; and
- vii. Design cultural change programmes to cultivate hygiene-related behaviour among college community members, so they become custodians of environmental protection and thereby contribute greatly to reducing the risk of outbreaks of contagious diseases.

## **CHAPTER THREE**

### **3.0 POLICY IMPLEMENTATION, MONITORING AND EVALUATION**

#### **3.1 Policy implementation**

The office of the Deputy Principal (Planning, Finance and Administration) shall be the overall custodian of the Environmental Policy through the Estates and Works Management Unit. The Estates and Works Management Unit shall take the lead in ensuring that this Policy is communicated to stakeholders and implemented accordingly.

The faculties, directorates, heads of major departments and units are responsible for ensuring compliance with the College Environmental Policy within their area of jurisdiction.

Despite the fact that the College is mainly responsible for implementing this Policy, individuals have an important role in cooperating with those responsible for safeguarding the environment. Individual staff and students are required to abide by the rules and requirements set out in this policy.

Meanwhile, DUCE's neighbouring communities will be involved in implementing this Policy by participating in DUCE Environment Day and other environmental outreach activities.

#### **3.2 Monitoring and Evaluation**

Monitoring and Evaluation (M&E) of this Policy shall be necessary for effective and efficient implementation. Activities for implementing the Environmental Policy shall be monitored periodically to ensure they achieve the Policy objectives. This will help the College identify successes and challenges and set mitigation measures for the shortcomings. Outcomes and impact of policy interventions shall be evaluated and reported accordingly.

Therefore, the College Management shall ensure that the Monitoring and Evaluation plan for the Environmental Policy is established and feedback is provided. Regular monitoring will be conducted by the Estates Committee and the Health Committee to assess the progress of interventions towards the realisation of the Environmental Policy targets.

#### **3.3 Reporting**

- i. The Head of Estates and Works Unit shall prepare an annual action plan for implementation of this Policy; and
- ii. The Head of Estates and Works Unit shall prepare and submit quarterly and annual reports to the College Health Committee and the Management Committee, and subsequently to the Estates Committee, for review before submission to the College Governing Board.

### **3.4 Review of the Policy**

This Policy will be reviewed every 5 years or whenever the need arises, to determine whether it is still relevant, effective, and in line with the overall College objectives. The Deputy Principal (Planning, Finance and Administration) shall initiate the review process, which may be undertaken using internal expertise or by commissioning an external reviewer, if deemed necessary. The College Governing Board shall approve any proposed amendments to the Environmental Policy before they can become valid and effective.

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