



**PROPOSED
CHUKA UNIVERSITY ENVIRONMENT POLICY**

MAY, 2014

FOREWORD

Chuka University endeavors to excel in Environment and Renewable Energy as key thematic areas for teaching and research to enhance regional, national and global development. It is recognized that there is a link between development and both natural and built environment. This policy is therefore an effort towards realization of goal of achieving sustainable development in a clean and healthy environment.

Establishment of the University at Ndagani area in Thraka-Nithi County almost a decade ago by the Government of Kenya offered myriad opportunities for human, social and economic development. However, there were attendant environmental concerns that emerged as result of these developments. These *inter alia* include change in land use from largely small scale farming to semi-Urban settlement to cater rapid increase in population of students staff and other supporting personnel. Construction of tall building and access roads is now a common feature of the university and its environs. These changes have resulted to increase in solid and domestic waste water which require proper management and disposal in order to maintain clean environment.

Furthermore, the main University Campus is located on a 50 acre piece of land in a high agricultural potential area just few Kilometers from Mount Kenya forest, while the 500 acres Kairini farm, which belong to university is situated about 30 km away in an ASAL zone. These ecosystems are natural capital which offers important provisional, cultural, and supporting services. Most members of our neighboring community depend directly or indirectly on environmental goods and services. Resources accrued thereto contribute directly and indirectly to the local and national economy through revenue generation and wealth creation in such productive sectors as agriculture, fishing, livestock, water, energy, forestry, trade and industry. The survival of their socio-economy is ultimately dependent on our ability to manage and conserve the environment.

This policy seeks to address the issues of environmental integrity within the University and its surroundings with view to mitigating the negative consequences in use of natural resources for us to realize benefits bequeathed by the environment.

Professor Erastus N. Njoka

Vice Chancellor

OVERVIEW OF CHUKA UNIVERSITY

Chuka University was inaugurated on 8th January, 2013, making it the 2nd public university to be chartered and the 9th full-fledged public university in Kenya. The University is located within the Chuka Municipality in Meru South District, Tharaka-Nithi County. It is situated approximately 186 km from Nairobi along the Nairobi-Meru Highway on the slopes of the snow-capped Mt. Kenya at an altitude of approximately 2,000 m above sea level. The area provides a cool climatic environment, with 16°C to 24°C temperatures and an annual average rainfall of about 1,000 mm, excellent for learning and working.

The University is designated as a centre of excellence in Environmental and Renewable Energy Studies and offers university education, training and research at certificate, diploma, bachelor's, master's and doctorate degree levels in Education and Resources Development, Business Studies, Agriculture and Environmental Studies, Arts and Humanities, and Science and Technology.

Philosophy

Chuka University believes that sustainable national and global development can be achieved through nurturing an intellectual culture that integrates theory with practice to produce graduates with relevant knowledge, skills and responsible citizenry. The Institution also believes that education and training leads to social cohesion, human and economic development. This can be realized through passion for excellence, devotion to duty, accountability, prudent utilization of resources, corporate citizenship, and teamwork.

To actualize these beliefs, the University is committed to generation, preservation and sharing of knowledge for effective leadership in education, training, research and extension. The ultimate goal of Chuka University is to be a Premier University for the provision of quality education, training, research and extension in both basic and applied environmental and related studies.

Vision

To be a Premier University for the provision of quality education, training and research for sustainable national and global development

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DEFINITION OF TERMS

Community - A clearly defined group of users, which may be a clan or ethnic community.

These groups of users hold a set of clearly defined rights and obligations;

Invasive and alien species - A species that is not an indigenous species or an indigenous species translocated to a place outside its natural distribution range in nature;

Biodiversity - Variability among living organisms from all sources including ecosystems and the ecological complexes of which they are a part. It encompasses the ecosystem, species and genetic diversity;

Bio-prospecting - Exploration of biodiversity for commercially valuable genetic and biochemical resources and research;

Conservation - Protection, maintenance, rehabilitation, restoration and enhancement of the environment;

Ecosystem - A dynamic complex of plant, animal, micro-organism communities and their non-living environment interacting as a functional unit;

Environmental Impact Assessment - A systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment;

Genetic resources - Genetic material of actual or potential value;

Land use - Activities carried out on a given piece of land;

Payment for environmental services (PES) - Market-based approach to conservation

Protected area - An area declared to be a protected area under the applicable law;

Species - Population of individual organisms capable of mating with one another and producing fertile offspring in a natural setting and that share common and specialized characteristics from others;

Stakeholder - An individual or group having a vested interest in environment and natural resources;

Strategic environmental assessment - Refers to a range of analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programs and evaluate the inter linkages with economic and social considerations;

Sustainable use - Present use of natural resources, which does not compromise the ability to use the same by future generations or degrade the carrying capacity of ecosystems and habitats;

Wetlands - Areas of marsh, fen, peat land, or water, whether natural or artificial, permanent or temporary, static or flowing, fresh, brackish, salt, water bodies.

Wise use - Sustainable utilization of resources, including wetlands for the benefit of humankind in a way compatible with the maintenance of the species and the integrity of the ecosystem.

ACRONYMS

- ASALs - Arid and Semi-Arid Lands
- CBOs - Community Based Organisations
- CITES - Convention on International Trade in Endangered Species
- COPDS - Chronic Obstructive Pulmonary
- EIA - Environmental Impact Assessment
- FIRMS - Fishery Resources Monitoring System
- GDP - Gross Domestic Product
- GIS - Geographical Information System
- GoK - Government of Kenya
- IESC - Institution Environment Sustainability Committee
- IWRM - Integrated Water Resources Management
- MDGs - Millennium Development Goals
- MEMR - Ministry of Environment and Mineral Resources
- NEMA - National Environment Management Authority
- NGOs - Non-Governmental Organizations
- UNCCD - United Nations Convention to Combat Desertification
- UNESCO - United Nations Educational, Scientific and Cultural Organization
- UNFCCC - United Nations Framework Convention on Climate Change
- WEHAB - Water, Energy, Health, Agriculture and Biodiversity
- WHO - World Health Organization

1.0 INTRODUCTION

Environment is the natural world which people, animals and plants live. It includes land, water, and atmosphere, biological and social factors as well as built environment. Environmental policies are action frameworks which guide conservation initiatives alongside human development aspirations. This is based on the principle sustainable development. In this regards, this policy will regulate developments to safeguard the retention of physical environmental, social cultural, economic and infrastructural carrying capacities. Carrying capacity is the maximum threshold which an entity can support without interfering with the ecological balance, economic equity, social harmony, and agreeable physical development levels.

2.0 SITUATIONAL ANALYSIS

Chuka University has of 550 acres of land. The main campus built on 50 acres land which hubs administration units, academic tuition complexes, library, dispensary, students' hostels, stadium and an airstrip occupying 60% of this area. The main roads and the pathway feeder roads are relatively hardened with tarmac and concrete slaps. This area supports population of approximately 10,000 people (students & staff). Main campus also comprises of a farm unit, with a demonstration farm for horticultural sciences. The other 500 acres are located at Kairini, approximately 30 km south of Chuka town. This is considered a range land with less than 5% constructed area. The environmental policy is expected to provide guidelines for further human development while steering to promote a sustainable supply of natural resources in this area. In its location Chuka University community influences air, water and soil quality while asserting pressure on the nearby forest resources.

3.0 GOALS, OBJECTIVES & GUIDING PRINCIPLES

The Chuka University policy will focus on enhancing integrated planning of environmental use in light of local social economic needs, while aspiring to address local, national and global environmental challenges. The policy will respect Chuka University's internal and external stakeholders' development interests while safeguarding environmental quality. In this regards the policy will solicit for continued policy dialogues between University management, staff, students, indigenous community, private industries, and other public entities. In order to coordinate environment development at the institutional, regional and national level, the policy will consider natural resources to be public and shared across individuals, institutions and sectors. Collective action in environmental resources management will therefore be prioritized through fostering sound relational ties with partners.

4.0 ENVIRONMENTAL GOVERNANCE

The University will endeavor to coordinate local, regional and global environmental laws while lobbying for better environmental stakeholder governance efforts. It will provide a link to the Environmental Management & Coordination Act (EMCA, 1999), while supporting institutional planning committees. The policy provides for the establishment of the institution Environment Sustainability Committee (IESC) of Chuka University. It will coordinate and empower institutional lobby groups such as Environmental Association of Chuka University, Wildlife Association, Natural Resources Clubs, among others.

5.0 MANAGEMENT OF ECOSYSTEM & SUSTAINABLE USE OF NATURAL RESOURCES

The policy will safeguard ecological balance in its efforts to enhance air, water and soil quality while maintaining environmental benefits. Chuka University will be committed to minimize its water, energy and carbon demands while reducing environmental wastes and pollutants within its environs.

6.0 ENVIRONMENTAL STEWARDSHIP

This policy will ensure adherence to conservation principles in constructions, energy consumption, disaster management, and sustainable use of soil, water, forest and minerals resources.

6.1 University Constructions

The Policy will provide sound guidelines for construction of University facilities in order to retain the physical carrying capacity. Large storied buildings will be constructed on hardened terrestrial grounds; approximately 100 meters away from wetlands. The geographical drainage patterns will be respected when developing waterways, septic tanks, and sewage facilities. A provision will be set for future expansions in order to address increasing population demands. Landscaping plans will ensure that the external environment suits the facilities' architecture. The landscape plans will retain adequate space for parking slots, open rest benches, and adequate play grounds which respects the environmental aesthetic value. At all times an Environmental Impact Assessment shall be carried out for new and modified constructions in compliance with NEMA regulations.

6.2 Energy Consumption

Renewable energy sources shall be used in providing power in attempt to minimize the institutional energy demands. Solar panels will be used in lighting academic blocks and other newly constructed buildings. Biogas will be harnessed to provide power in the farm units, staff apartments, and will utilities in the University.

6.3 Disaster Management

The University will strive to develop elaborate mechanisms for handling environmental related disasters. The policy will provide guidelines for minimizing flood, wind, lightning, fire, draught, physical accidents, food poisoning and terrorism related disasters. All University buildings will be installed with lightning arrestors and large buildings fitted with lightning arrestors. It will provide for development of arboretums, micro-forests and planting of ornamental trees on open grounds in attempt to minimize potential flood and wind disasters. Storied buildings shall be fitted with grills on lobby areas, stairways, and corridors order to reduce physical accidents. Lifts and pathways for handicapped will be provided when constructing new buildings. University food stores will be periodically inspected by professional bodies in order to control potential food poisoning incidences. The university will provides for establishment of hotlines with the fire brigade, Kenya Police, Local Community Policing teams, provincial administration and National Security Intelligence agencies.

6.4 Water Consumption

The policy will address the need to minimize water demands in the region in order to retain hydrological balance while conserving the nearby Mt. Kenya watershed. Water consumption volume will be minimized through improved water harvesting methods. Underground reservoirs will be developed in order to retain harvested rain water from University buildings. Such water will be used for irrigation the arboretum, botanical gardens and University flowers. Waste water originating from the sewage systems will be treated and recycled to irrigate the University demonstration farms. Sludge shall be dried to manufacture fertilizer and construction bricks.

6.5 Forest Resources

The University policy will endeavor to minimize demand for forest resources in attempt to conserve endangered plant species. Over 70% of the furniture used in the university will be made of exotic timber, plastic or recycled wood products (plywood, chipboard). Strategies to support government's effort of increasing forest cover to 10 % will be developed. These efforts will include establishment environmental lobby committees/associations to conduct rehabilitation exercises annually in Mt. Kenya and its environs.

6.6 Energy and Mineral Resources

The University policy will promote efficient fuel consumption by supporting a shift from utilizing mechanical machines to electrically powered machines. Additionally, Management Information Systems will be used to disseminate information across campuses in attempt to lower fuel related costs. The policy will promote use of green energy and provide for the integration of scientific and indigenous knowledge in guiding sustainable utilization of iron ore deposits in Tharaka, Sodium Bicarbonate, and other minerals within environs of the university.

7.0 ENVIRONMENTAL QUALITY & HEALTH

In order to address the need to have a safer environment for populations within the university and its environs the environmental this policy will provide for the management of waste substances. This will entail control of metallic, organic, plastic, medical, liquid and gaseous waste in order to enhance soil, water and air quality.

7.1 Air Quality

The policy will provide guidelines for control of air pollution by particulate material released at construction sites within the university. Carbon dioxide emissions will be minimized through purchase of automobiles engines with lower emissions. Support reforestation of range lands such as Kairini farm in order to increase carbon dioxide sequestration. Methane accumulation will be minimized through controlling waste dumping.

7.2 Waste Management

All solid waste will be sorted in relevant bins, at the collection areas, dried, separated and treated under a closed setting. Solid waste will be recycled for better economic value and unnecessary trash will be incinerated. Waste water will be treated before release in to the environment or recycled for utilization in agricultural purposes. Chuka University will develop an Integrated Waste Management Plan for both the institution and the entire Mt. Kenya Region.

7.3 Toxic and Hazardous Substances

This policy will provide for the control of medical waste from the University dispensary and inhibit laundry effluent discharge from the University hostels. This will include control of

sanitary materials. Staff and students will be informed and held accountable for the improper disposal of contraceptives. Effluents from the academic laboratories shall be inhibited on the nearby open areas and grasslands. This will be monitored by the institutional Environmental Sustainability Committee (IESC).

7.4 Noise

Noise will be minimized in theatres and studios by installing sound proof materials in common areas. The IESC will lobby with the religious, private and public groups within the University and its environs to minimize noise pollution in compliance with NEMA regulations. Law on noise pollution will be observed in all entertainment and public events in the university.

8.0 RESEARCH & MONITORING

8.1 Scientific, Research and Information Management

The university will develop information management strategy on local environmental and biological resources; Integrate traditional indigenous knowledge in environmental planning and management; support research projects in transfer knowledge and technologies for environmental conservation.

8.2. Education, Communication and Awareness

Environmental education is vital in changing people's attitude to appreciate environmental issues. In order to develop public awareness and strong sense of responsibility on environmental issues, the university will develop a strategy on Environmental Education and Public Awareness; mainstream environmental education in university curriculum and establish environmental resource center in the Department of Environmental Studies.

8.3 Environmental Monitoring and Assessment

Environmental monitoring is important for determining environmental trends and status for enhancing enforcement and compliance. In this regard the University will develop and implement standardized indicators that will form the basis of monitoring the status of the local environment; develop and implement an environmental monitoring and assessment Program.

9.0 IMPLEMENTATION STRATEGIES

Chuka university management will undertake the overall implementation of the environment policy by providing leadership and budgetary support. Coordination of the environment policy will be responsibility of Institutional Environmental Sustainability Committee which will report to the university administration. This policy will be availed to staff, students and other stakeholders.

10.0 MONITORING COMPLIANCE

Monitoring environmental integrity is essential in evaluating implementation progress. It is useful in detecting violation of environmental integrity as it provides evidence to support enforcement actions. To achieve this goal the university will design and implement an Environmental Inspection and management Program. Monitoring this policy will involve collecting and analyzing information on the compliance status of various sectors of the University and stakeholders. Towards this end, the University will promote negotiated agreements, self-monitoring and reporting, and record keeping by stakeholders.

11.0 POLICY REVIEW

The policy will be reviewed regularly in consultation with Chuka University Institutional Environmental Sustainability Committee. The committee will ensure that information relating to this policy in the university is updated annually and reported to the relevant university authority.

REFERENCES

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