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ENVIRONMENTAL LITERACY EDUCATION AS A NECESSARY PEDESTAL FOR DOMESTICATION OF THE GREEN CAMPUS CONCEPT: THE CHALLENGE FOR NIGERIAN UNIVERSITIES

Caroline L. Eheazu, Ph.D.

Department of Adult and Non-Formal Education University of Port Harcourt
Box 133 Uniport P.O. Choba, Port Harcourt, Rivers State, Nigeria

ABSTRACT: *The threats of global unsustainable social and economic activities to man's environment, especially in the early 1990's, gave rise to International Conferences and Summits that considered, among other things, what colleges and universities should do to bring about a sustainable future for mankind. Along the line, the Green Campus Concept was born out of a* ***Blueprint for a Green Campus*** *developed in one of the said Summits. The Blueprint outlines guidelines for domesticating the Concept, including the use of Environmental Literacy/Sustainability Education to actualize the domestication process. The purpose of this paper is to highlight the necessity of environmental literacy/sustainability education as a pedestal for development of Green Campus Initiatives and the challenge this poses to Nigerian Universities. Based on the result of her recent related research study, the author of this paper has made critical suggestions that could help in tackling the challenge.*

KEYWORDS: environmental literacy education, green campus concept, domestication, Nigerian universities, green campus blueprint, green campus initiatives.

INTRODUCTION

Some Basic Clarifications

Universities and Environmental Literacy Education

Concern for continuing global unsustainable and inequitable consumption patterns in spite of earlier attempts to inspire and guide the peoples of the world towards preservation and maintenance of the human environment (UNESCO, 1978; WCED, 1987) and the resultant deterioration of ecosystems, generation of various forms of hazardous wastes and Green House Gases and unsustainable depletion of natural resources, stirred up a number of International Declarations, Summits, Conventions, Conferences and Protocols, especially since the third quarter of the 20th Century. These events were principally organized to address the incidental real and emerging environmental hazards facing mankind as well as to ultimately foster sustainable development globally.

Along this grain of commitment, it was aptly considered that students, as future resource consumers, need to know about environmental sustainability problems and how to help

create an environmentally healthy and more humane world. Institutions of higher learning, especially colleges and universities, were seen to have a major role to play in the education, research, policy formation and information exchange necessary to actualize these goals (Shriberg & Tallent, 2007). However, for a college or university to be considered to have included sustainability in its curricula, it was equally considered mandatory that both an environmental literacy component and a social responsibility/civic engagement component need to be emphasized (Cortese, 2003). Unfortunately, national surveys at the time tended to reveal that most institutions of higher education had done little or nothing to systematically include the said components in their curricula. In other words, at most institutions of higher education, students graduated and yet remained environmentally illiterate (McIntosh et al, 2001; Wolfe, 2001; Eheazu, 2012).

It was with this background that in October, 1990 a historic attempt was made to define and promote sustainability and environmental literacy education in higher education. Jean Mayer, the President of Tufts University, USA, invited twenty-two university Presidents, Chancellors and Vice Chancellors in Talloires, France, to voice their concerns about the state of the world and create a document that spelled out key actions institutions of higher education must take to create a sustainable future. Recognizing the shortage of specialists in environmental management and related fields, as well as the lack of comprehension by professionals in all fields of their effects on the environment and public health, the conference of University Presidents and Chancellors defined the role of the university in the following words (ULSF, 2019a, p. 1):

> Universities educate most of the people who develop and manage society's institutions. For this reason, universities bear profound responsibilities to increase the awareness, knowledge, technologies and tools to create an environmentally sustainable future.

The participants further discussed the importance of increasing ***environmental literacy*** among specialists in Engineering, Science, Economics, Social Science, Health and Management. They spoke of the need for expanded research on the complex interaction of human activities and the environment, including strategies, technologies, policies, and institutional behaviour. Recognizing that the university or college is a microcosm of the larger community, the group called for higher education institutions to model environmentally responsible behaviour in their daily activities. They observed that by practicing what it preaches, the university can both engage students in understanding the institutional metabolism of materials and activities, and have them actively participate to minimize pollution and waste. Finally, the conference of University Presidents and Chancellors acknowledged that, as university leaders, they were uniquely positioned to bring together all the academic disciplines and professional schools on large, complex issues. It therefore was further acknowledged that it was incumbent upon them to focus their institutions' attention on critical environmental issues by speaking out, acquiring new and

mobilizing existing resources, creating incentives and programmes for faculty development, and fostering interest in the issues. The conference concluded with a ten-point action plan tagged the "Talloires Declaration" for Colleges and Universities committed to promoting education for sustainability and environmental literacy.

The Declaration is a consensus statement, a ten-point action plan for incorporating sustainability and Environmental Literacy (EL) in teaching, research, operations and outreach at colleges and universities. The plan was authored by twenty (20) university leaders and international environmental experts (original creators and signatories) representing fifteen (15) nations from the global North and South, including Nigeria, represented then by the Vice-Chancellor of Ahmadu Bello University, Zaria, Nigeria. As of March, 2019, over five hundred (500) college and university Presidents and Vice-Chancellors in over fifty (50) countries from five (5) Continents signed the declaration (USLF, 2019b).

Given the above emphasis on EL in University Education to create an environmentally sustainable future, a brief reference to what constitutes environmental literacy may be insightful to the reader at this point. Roth (2002, P. 11) defines Environmental Literacy (EL) as:

> ... a set of understandings, skills, attitudes and habits of mind that empowers individuals to relate to their environment in a positive fashion and to take day-to-day and long term actions to maintain or restore sustainable relationships with other people and the biosphere ... The essence of EL is the way we respond to the questions we learn to ask about our world and our relationship with it; the ways we seek and find answers to those questions; and the ways we use the answers we have found.

In apparent agreement with the above definition of EL, Archie (2003) has identified some basic aims of EL to include:

a) Developing inquiry, investigative and analytical skills related to the environment;
b) Acquisition of knowledge of environmental processes and human systems;
c) Development of Skills for understanding and addressing environmental issues;
d) Promotion of personal and civic responsibility for taking environmental decisions.

The Green Campus Concept

A major strategy for providing EL in higher education was the introduction of a ***Green Campus Concept,*** a novel idea which posits that higher education campuses are veritable places where environmentally-friendly practices and education could combine to promote sustainable and eco-friendly practices. The Green Campus Concept affords colleges and universities the opportunity to take the lead in redefining their environmental culture and

developing new perspectives for generating sustainable responses to environmental, social and economic needs and challenges of their campuses particularly and mankind generally (DTE, MP, 2019).

The origin of the Green Campus Concept could be traced to a ***Campus Earth Summit*** which was convened at Yale University, USA from February 18-20, 1994, barely two years after the popular World Earth Summit in Rio de Janeiro, Brazil (UNCED, 1992). The Campus Earth Summit brought together 450 University Faculties, staff and students from 22 countries, 6 continents and all the 50 states of North America. The purpose was to craft a ***Blueprint for a Green Campus*** comprising a set of recommendations for higher education institutions across the globe to work toward the production of environmentally literate persons that would ensure environmentally sustainable future.

Teresa Heinz, the Chairman of Heinz Family Foundation Unit that organized the Summit, defined a Green Campus as (Heinz, 1995, p. 2),

> one that integrates environmental knowledge into all relevant disciplines, improves environmental studies course offerings, provides opportunities for students to study campus and local environmental problems, conducts environmental audits of its practices, institutes environmentally responsible purchasing policies, reduces campus waste, maximizes energy efficiency, makes environmental sustainability a top priority in land-use, transportation, and building planning, establishes a student environmental center, and supports students who seek environmentally responsible careers.

In her introductory remark at the Campus Summit, Heinz (1995, p.7) also spoke of lapses in the contributions of tertiary institutions toward environmental sustainability as follows:

> Colleges and universities wield incredible power – and yet, at least in terms of the environment, most have not wielded it well. Our institutions of higher learning provide the knowledge that will guide future architects, engineers, policy makers, community activists, industrialists, mothers, fathers – potential teachers, all. Nonetheless, with only a few noteworthy exceptions, most colleges and universities fail to educate their students in the environmental ramifications of their fields of study. We will persist in designing buildings that are energy-inefficient, products that pollute, and systems that throw off waste – we will go on doing all these things and more, as

> long as our educators fail to teach their students that it does not have to be this way. There is a better, and less expensive way…..

Furthermore, delegates to the Campus Earth Summit were of the conviction that since Colleges and Universities educate most of the people who run society's institutions and train the teachers who educate the children, it "becomes clear that transforming campuses into catalysts for environmental sustainability is a very good first step towards changing the world" (Heinz, 1995, p. 2). The Blueprint that emerged out of the series of discussions in a collaborative process made the following ten recommendations which require universities to:

i. integrate environmental knowledge into all relevant disciplines;
ii. improve undergraduate environmental studies course offerings;
iii. provide opportunities for students to study campus and local environmental issues;
iv. conduct a campus environmental audit;
v. institute an environmentally responsible purchasing policy;
vi. reduce campus waste;
vii. maximize campus energy efficiency;
viii. make environmental sustainability a top priority in campus land-use, transportation and building planning;
ix. establish a student environmental centre;
x. support students who seek environmentally responsible careers.

The first three of the ten recommendations can be considered as having direct relevance to the promotion of environmental literacy among would-be university graduates and therefore require inclusion of their relative details as provided immediately below.

i) The first recommendation advocates integration of environmental knowledge into all relevant disciplines. For the achievement of this recommendation, the Blueprint further suggests that universities and colleges should:
   a) include in their academic mission statements a section which clearly states that all students upon graduation, will possess the knowledge, skills and values to work toward an environmentally sustainable future;
   b) provide appropriate resources for faculties to integrate environmental issues and perspectives into their existing courses;
   c) become signatories to the Talloires Declaration, an international declaration of principles dedicated to fostering environmental literacy;
ii) In the second recommendation, the Campus Earth Summit Blueprint suggests improvement in undergraduate environmental studies course offerings through:
   a) formation of a review team to produce report on the quality of any existing or proposed environmental studies course offerings;
   b) publicization, distribution and adoption of the recommendations made by the review

committee;
c) making a university commitment to provide funding for the teaching and administration of the reviewed courses.

iii) Recommendation No. 3, stipulates that universities should provide opportunities for students to study campus and local environmental issues. This, the Blueprint further clarifies, should be attained through:
a) organizing classes in which students could obtain academic credit for research on campus and local environmental issues;
b) making a commitment to use the outcome of the research studies to help formulate more effective and innovative approaches to campus and local environmental issues.

Notwithstanding the above strategies advocated by the Campus Earth Summit, a number of other approaches for improving environmental literacy in higher education through achievement of basic environmental knowledge have also been proposed. According to Coyle (2004, p. 103), such approaches include:

- ... more evaluative and controlled studies of the complex relationships between certain types of environmental instruction and learning strategies and their associated changes in affect, skill and behaviour.
- ... up-to-date compilation and assessment of unpublished or minimally published research found in doctoral dissertations, masters' theses and other smaller or side-specific projects.
- ...evaluation of what appear to be the most promising programs for creating bonafide environmental literacy, including more testing of programs of the more comprehensive approaches to environmental education.

From the various attempts to define processes for achieving quality environmental literacy education in higher education institutions, it is obvious that universities have a lot to do in the quest to promote environmental literacy among their staff and students in line with the Green Campus Concept.

Domestication of the Green Campus Concept: A Definition

The term domestication, is usually defined in literal parlance as the act of taming or adapting wild animals, plants and so on to live in close association with human beings. In its general application, domestication is also defined as adopting (something foreign, unfamiliar and so on) for one's own use or purpose (Dictionary.com, 2015). However, as rightly observed by

Denis (2004), the concept, 'domestication' is used in contemporary times with different meanings. For instance, in Science, Technology and Media studies, there is a domestication theory which describes the concept as the approach and processes by which technology is tamed, adapted or appropriated by its users (Savacool & Hess, 2017). In the same vein, one could define the term, domestication, in the context of the topic of this paper, as referring to the various ways whereby colleges and universities adopt, adapt or appropriate the Green Campus Concept. The aptness of this contextual definition is crystallized in the Section of this paper below which articulates the variance of Green Campus Initiatives found in higher education institutions globally.

Purpose of this Paper

In line with the foregoing elucidations, the purpose of this paper is to highlight the need to ingrain environmental literacy education in university programmes to ensure attainment of the desirable level of success from domestication of the Green Campus Concept. As a corollary to this purpose, the paper is further intended to examine the challenge facing Nigerian Universities with regard to the prime importance of environmental literacy education in the domestication of the Green Campus Concept.

Variants of Green Campus Initiatives

Experience has shown that initiatives to domesticate the Green Campus Concept have

generally manifested three main variants which could be identified as: The Green University Campus Initiatives; The Sustainable Campus Networks Initiatives and The Eco-friendly Campus Initiatives. Some clarification, as provided immediately below, would be helpful for proper understanding of the variants.

i. The Green University Campus Initiatives

The Green University Campus Initiatives are those that approximate the characteristics of a Green Campus defined in the Green Campus Blueprint (GCB) and quoted earlier in the introductory part of this paper. The practical manifestations of the Green University Campus Initiatives include:

- Offering of Environmental Literacy/Sustainability-oriented academic and extra-curricular programmes;
- Adoption of a zero-waste policy which aims to increase compositing and recycling through infrastructure changes and campus-wide related events;
- Encouragement of green modes of transportation (eg. use of bikes, sidewalks and skiboards to class by students; and provision of electric vehicles charging stations on campus);
- Fitting buildings with energy efficient hardwares;

- Upgrading facilities to be more energy efficient (such as maintaining the grounds with minimal use of equipment that pollute or require a lot of fossil fuel).

Examples of Universities with Green Campus Initiatives (GCIs) can be found in both advanced and developing countries, though with more numbers in the former. In the United States of America for instance, seven of such universities have been identified among "25 best Green Colleges for 2019", using the above and other characteristics in the rating and ranking processes (BCR Staff, 2018). The Universities include University of Colorado, Boulder, Colorado; University of California, Santa-Barbara,; American University, Washington, D.C. and Loyola Marymount University, Los Angeles. California. In Africa, two Universities; namely, Cape Town University and the University of Western Cape (both in South Africa), have been listed as Africa's Green Campus Universities on the basis of characteristics similar to, but not exactly same as those mentioned above (SAnews, 2012; Green Africa Directory, 2012).

ii. The Sustainable Campus Network Initiatives

In 1987, the World Commission appointed by the United Nations to look into environmental degradation issues arising from social and economic developmental processes defined *Sustainable Development* as a development that meets the needs of the present without compromising the ability of future generations (Bruntland, 1987). From the 1990s to the 2000s, sustainability was subjected to wilder use. Numerous declarations promoting the concept were adopted. In the education sector, initiatives to include sustainable development in university administrations and programmes accelerated, especially in Europe and America. Gradually, the initiatives spread to other parts of the world (The Green Office Movement, 2019). The initiatives arose with the view that universities are ideally in a position to enlighten various segments of a populace towards formation of sustainable societies as the universities maintain neutral and objective presence that could promote sustainability through interaction with various stakeholders in society, utilization of university campuses as model of a sustainable society and through research-education processes.

Accordingly, a Sustainable University Campus Network has been defined as one that contributes to the building of a sustainable society through education, research, collaboration with the society and campus development. In other words, the aim of a sustainable university campus network initiatives is to practically and multilaterally support the sustainable development of society by expanding education and research that are rooted in social challenges as policies of the entire university and implementing campus development that harmonizes with surrounding areas (HUSCMO, 2018). In the same vein, the 2016 joint Report of the World Economic Forum and the International Sustainable Campus Network highlighted as exemplary campus sustainability initiatives, development of skills and building capacities of future leaders; collaborating to catalyze change, and innovating for efficient built environments (WEF-ISCN, 2016).

From the above brief discourse, it could be discerned that Sustainable Campus Network Initiatives, as a variant of the Green Campus Concept very much differ in focus from the

Green University Campus Initiatives. For one thing, while the later emphasizes among other things, inclusion of Environmental Literacy Education in academic programmes in universities, the former focuses mainly on interactions with and capacity building among future leaders to create a sustainable society.

iii. Eco-friendly University Campus Initiatives

The term, Eco-Friendly, literally refers to products/activities/services that are ecologically friendly; that is, not damaging to the environment (Advance English Dictionary, 2019); or which are less harmful to the environment than other similar products or services (Collins Dictionary, 2019). Applying these references in conjunction with what are generally seen as constituting eco-friendly activities on University Campuses one would define Eco-friendly Campuses as those that develop initiatives for their staff and students to learn to live in environmentally conscious setting and participate actively in promoting sustainability activities both on the campus and in neighbouring/local environment. Among the known initiatives of Eco-friendly University Campuses are (Earth 911, 2019):

i. Encouraging students to develop passion for protecting the environment through working with the University authorities to make the campus more green;
ii. Encouraging student formation and participation in eco-clubs both within and in nearby communities;
iii. Making efforts to slow down the impacts of climate change and reduce the carbon footprints of both students and staff through among other activities, provision of easy access to recycling of paper, water, and so on, increased use of renewable energy, and commitment to zero waste littering at events and around campus residencies;
iv. Maintenance of existing vegetation and planting of new trees, flowers, and creation of lawns and hedges;
v. Non-interference with existing forest, wetland, lake, river, hill, natural park and sanctuary or shrine;
vi. Erection of eco-friendly buildings on campus.

A number of universities have been identified and recognized for their Eco-friendly Initiatives on Campus both within and outside Africa. In Africa, seven (7) Nigerian University Campuses have been so designated (Nairaland Forum, 2019). Majority of these are agro-based and privately owned and occupy thousands of hectares of land space each with lush natural vegetation and spectacular geographical relief. They include, Landmark University in Kwara State; Covenant University, Ogun State; Adeleke University in Osun State and the Federal University of Agriculture in Ogun State (all in Nigeria). In the Western World, universities identified with Eco-Friendly Campus Initiatives include, Chitkara University in India (Chitkara University, 2019). Others include Pennsylvania State University, Michigan State University, University of Arkansas and Florida State University –all in the United States of America (Croy, 2019). As observed in the case of Sustainable Campus Networks Initiatives, Eco-Friendly University Campus Initiatives, as a variant of the Green Campus Concept, equally differ in focus and spectrum of activity slants from the

Green University Campus Initiatives, especially in view of the latter's emphasis and focus on Environmental Literacy as a platform, which the former does not emphasize.

From the above elucidations on the three major variants of Green Campus Initiatives (GCIs), it should become clear that the first variant, the Green University Campus Initiatives is the only one which uses Environmental Literacy Education as a pedestal for domestication of the Green Campus Concept and which indeed, executes the prescriptions of both the Talloires Declaration and the Green Campus Blueprint outlined earlier in this paper. Howbeit, this observation is not in any way meant to denigrate the respective contributions of the other two GCIs towards creating a sustainable society even with their limited spectra of 'green' activities, but rather to show the necessity of concentrating on the Green University Campus Initiatives in subsequent discussions here so as to conclusively address the stated purpose of this paper.

Environmental Literacy Education and Success of Domestication of the Green Campus Concept: Some Practical Examples.

In a study to comprehend Portland State University's (PSU's) green campus strategies and students' level of knowledge and living practice relating to green campus, Choi et al (2017, p. 1) succinctly reported as follows:

> …the level of students understanding about PSU's green campus strategies was somewhat low, but the amount of practices of a sustainable lifestyle was higher. Students who had taken courses related with sustainability or were engaged in sustainable activities had more knowledge about green campus strategies than students who had not. Therefore, it would be important to focus more on educating students and developing related programs in order to have more positive effects of green campus projects.

Again, in their Report on University of Colorado-Boulder, Colorado adjudged to be one of "25 Best United States of America Green Universities/Colleges" for 2019, America's Best Colleges Review Staff briefly highlights (BCR Staff, 2018, p. 12):

> As one of the preeminent green universities in the nation, the University of Colorado-Boulder makes sustainability a major part of its academics, extracurricular activities, and daily operations. Roughly a fourth of all offered courses are sustainability-related, and two-thirds of the university's departments have faculty engaged in sustainability-related research. Students are offered

> several immersion activities both on and off campus, including the Sustainability and Social Innovation Residential Academic Program. This program allows students from different majors to live together in a community that focuses on addressing issues such as climate change and resource depletion.

In the same vein, BCR Staff (2018, p. 3) extols the success of the green campus initiatives of Colorado State University, Port Collins, as follows:

> One of the top green schools in America, Colorado State University, is the very first green campus to achieve platinum status under the sustainability Tracking, Assessment and Rating System conducted by the Association for the Advancement of Sustainability in Higher Education, and it prides itself on its history as one of the most sustainable universities in the country. It offers sustainability-oriented academic programs and extracurricular activities.

Apart from the above, there are also more examples of successful green campus initiatives among universities that include environmental literacy or sustainability-related courses in their academic programmes and extra-curricular activities which space would not permit for discussion here. However, one or two more like Goucher College, Baltimore, Maryland, USA (BCR Staff, 2018) and, in Africa, Cape Town University (SAnews, 2012) should be mentioned as additional evidences of the importance of structuring higher education curricula to include environmental literacy/sustainability content for comprehensive and successful domestication of the Green Campus Concept.

Domestication of the Green Campus Concept in Nigerian Universities: The Challenge of Inadequate Provisions for Environmental Literacy/Sustainability Education

In one of the sections of this paper above, the author mentioned that Nigeria has a number of top university campuses with eco-friendly initiatives. The author also quickly indicated that majority of these campuses are agro-based and privately owned. The campuses occupy thousands of hectares of land space each with lush natural vegetation and beautiful geographical features. One of the universities owned by the World Missions Agency is reported to be "distinguished by an all green architecture, presumably a declaration of its allegiance to Mother Earth, has a campus with a reverence for lush lawns and well manured flowers that is set to take you closer to God" (Nairaland Forum, 2019, p. 1). Indeed, the eco-friendly initiatives seem to be predicated on the desire to do no harm to the environment and

to improve on what nature has provided by replacing alien flora in the ecosystem with more adorning and fruit bearing plants.

Nigerian universities, generally, do not seem to have developed a culture of adopting the Green Campus Concept in its reality. About three years ago (2016) a young female lecturer at the Obafemi Awolowo University, Ile Ife (Adeyemi College Campus), Nigeria, Adenike Akinsemolu, started advocacy for a Green Campus Initiative (GCI) which is acclaimed to be the first campus-based environmental advocacy organization in Nigeria. A holder of Doctorate Degree in Environmental Microbiology, the lecturer is reported to have been motivated to begin the advocacy when she shockingly observed how ignorant her otherwise intelligent undergraduate students were about issues of climate change and environmental sustainability (Woman.NG, 2016).

Adenike's observation of a shockingly low level of environmental knowledge among her undergraduate students by 2016 was in line with the result of an empirical study conducted by the author of this paper and published two years earlier (Eheazu, 2014a). Titled "Acquisition of Environmental Literacy by Nigerian University Students…", the aim of the study was to ascertain the extent to which Nigerian University Students attained appropriate levels of Environmental Literacy (EL) that would enable them later, as adult members of society, to effectively contribute towards national and global sustainable development. Roth's (1992) definition of the content and three levels of environmental literacy was adopted for the study. In brief, the three levels of EL and their attributes, as defined by Roth, are as follows:

i) Environmental Literacy Level One (ELL_1), referred to as the '***Nominal Level',*** depicting ability to recognize many of the basic terms used in communicating about the environment and to provide rough, unsophisticated, working definition of their meanings.

ii) Environmental Literacy Level Two (ELL_2) also called the '***functional level',*** indicating a broader knowledge and understanding of the nature and interactions between human social systems and other natural systems; and

iii) Environmental Literacy Level Three (ELL_3), the '***Operational Level',*** implying progress beyond the functional level in both the breadth and depth of understandings and skills. Persons at the operational level routinely evaluate the impacts and consequences of actions, gathering and synthesizing pertinent information, choosing among alternatives, advocating action positions and taking actions that work to sustain or enhance a healthy environment both locally and globally.

A sixty percent sample (1,514) of the total population (2,527) of final-year undergraduate students in seven Departments/Programmes within four Faculties in three Nigerian Universities selected from the environmentally-hazard-prone Niger Delta Region of Nigeria were involved in the study. Analysis of Variance (ANOVA) was among the statistical

methods used to analyze data obtained through a questionnaire designed after Roth's (2002) model framework for the study. From the analysis, it was established that the students acquired the nominal level of Environmental Literacy (ELL_1) ***most; less*** of the functional level (ELL_2), and ***least*** of the operational level (ELL_3). It was further established that the three universities studied did not differ significantly in exhibiting this feature of limited student EL acquisition.

Two serious revelations further emerged from the study under reference and were documented as follows (Eheazu, 2014b, p. 73):

i) Nigerian universities are yet to fully embrace and implement the 10 point action plan of the Talloires Declaration (referred to earlier) to which Nigeria is a signatory on behalf of her universities, and which, among other things, requires the universities to educate for environmentally responsible citizenship (ULSF, 2019a);

ii) Specifically, General Studies (GES) which is a compulsory course for all Nigerian Universities, is yet to identify with the global movement to ensure that "Core General Education requirements for undergraduate degrees incorporate an in-depth focus on sustainability, including an environmental literacy component" (Filho, 2002, p. 3).

These revealed features of low levels of environmental literacy acquisition and inadequate provision for environmental literacy/sustainability education occasioned by non-adherence to related international declarations and global agreements, obviously pose a challenge to comprehensive domestication of the Green Campus Concept in Nigerian Universities. This could not have been otherwise, especially in the light of the practical illustration of the successes achieved in Green Campus Initiatives by Universities with vast environmental literacy/sustainability education programmes in both their curricular and extra-curricular activities. To help improve the situation, the author of this paper hereby reiterates the related critical suggestions she had made elsewhere (Eheazu, 2014b) which include:

i) The National Universities Commission (NUC) of Nigeria should make inclusion of relevant environmental sustainability courses mandatory for Nigerian Universities, and thereby, among other things, honour Nigeria's endorsement of the Talloires Declaration;
ii) The various Nigerian Universities should design core environmental literacy courses/programmes which would enable students to study campus, national and global environmental issues. Such courses should also form an important part of the compulsory General Studies (GES) programmes of the universities;
iii) Nigerian Universities should provide Environmental Studies course offerings as electives in all non-environmentally oriented undergraduate disciplines;

iv) To ensure the success of recommendation No.(iii) above, as well as promote students' acquisition of the three levels of EL, each Nigerian University should include in its Statement of Academic Policy, a section which would stipulate that **upon graduation**, **all students will possess the knowledge, skills and values to work towards an environmentally sustainable future**;

v) Environmentally-related disciplines in Nigerian Universities (e.g. botany, geography and so on) need to broaden their contents beyond their basic curriculum concerns to include social, economic and political dimensions of human interaction with natural systems. This will provide students in those disciplines the opportunity to acquire not only remarkable environmental awareness/knowledge at the ELL_1, which is currently the case as revealed above, but also desirable attitude, values, commitment and skills (at the ELL_2 and ELL_3) needed to create new patterns of behaviour in individuals, groups and society for environmental protection and improvement as recommended by UNESCO (1978), and thus foster successful domestication of the Green Campus Concept in the Universities.

CONCLUSION

The foregoing expositions and highlights in relation to the topic of this paper should leave no one in doubt regarding the necessity of Environmental Literacy/Sustainability Education as a foundation for domestication of the Green Campus Concept and development of appropriate initiatives under the guidelines provided by the ***Blueprint for a Green Campus.*** The challenge that Nigerian Universities have, therefore, is the virtual absence of organized programmes of environmental literacy/sustainability education in the universities. However, the universities have been provided a lifeline for tackling this challenge through the critical suggestions made in this paper by its author.

RECOMMENDATION

In the light of the overall clarifications made and conclusion arrived at in this paper, it becomes pertinent to recommend that universities (including those in Nigeria) that wish to domesticate the Green Campus Concept in its reality should make environmental literacy/sustainability the fulcrum or pedestal for their initiatives. Engaging in Sustainable Campus Networks or Eco-Friendly Campus Initiatives would be good efforts at sustainability, but they are limited in scope and desirable results as they are not rooted in the process of enlightenment, skills development and motivation of participants which are achieved through Environmental Literacy/Sustainability Education. Nigerian education authorities and universities, in particular, are hereby advised to consider the relevant suggestions outlined in this paper by its author to remediate the challenge which the universities face regarding domestication of the Green Campus Concept.

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