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RESEARCH PROGRAMME

HEHD POLICY BRIEF

ENVIRONMENTAL EDUCATION FOR ENVIRONMENTAL SUSTAINABILITY IN ZAMBIA

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About this brief

This brief considers a capability-based framework for environmental education as a crucial imperative for environmental sustainability in Zambia. It focuses on how higher education institutions can and must contribute to fostering agents of positive environmental change. The brief is addressed to environmental scholars, practitioners, policy institutions, and higher education institutions concerned with enhancing environmental sustainability in developing economies, such as Zambia.

Research Problem

The prerequisites for environmental education (EE) that arose in the late 1960s and 1970s emphasise incorporating ecological content into the educational curriculum by boosting technical skills and instilling a general concern for the environment. The overarching goal was to develop active citizens capable of achieving environmental stability and sustainable development. However, given the complex and context-specific nature of environmental concerns, it is imperative to explore how environmental education is fostering agents of change in Global South contexts such as Zambia. Moreover, the perspectives of environmental students, graduates, lecturers, and environmental policy institutions remain unvoiced. If – as emphasised in various policy documents and declarations – a vital outcome of EE is to transform and equip people with the knowledge, skills, and attitudes to drive positive environmental change, it is essential to empirically explore the opportunities needed to foster this outcome. Using a human-centred capability approach as an analytical framework, this study explored how environmental education can foster agents of environmental sustainability in Zambia. It essentially sought to understand the valued capabilities for enhancing environmental sustainability (becoming and flourishing as agents of environmental sustainability). This broadens our understanding of how universities can contribute to the enhancement of environmental sustainability.

Research Aim and Objectives

The research aimed to investigate the influence of EE on past and present students of UNZA, with specific regard to their agency for positive environmental change action. The overarching question that the study sought to answer was: How – if at all – has the study of EE at UNZA fostered the capabilities of students and graduates to be agents of environmental sustainability in Zambia? The objectives of the study were to (1) identify and analyse the aims and values ascribed to the Environmental Education (EE) programme at the University of Zambia; (2) examine the capabilities acquired by students and graduates through participation in UNZA's EE programme; (3) determine the key capabilities required for students and graduates to function as effective agents of environmental sustainability in the Zambian context; (4) explore the conversion factors that influence the extent to which EE students and graduates realise their potential (functionings) as agents of environmental sustainability; (5) derive lessons and implications from the study for students, higher education institutions (HEIs), and environmental sustainability practitioners in the context of environmental education and practice.

Methodology

The research reported on used a qualitative approach to explore the perspectives of 12 environmental education students (final year); 13 graduates (graduated between 2012 and 2021); 4 environmental education lecturers; and 3 representatives from the Zambia Environmental Management Agency and the Ministry of Green Economy and Environment. Data was collected through semi-structured interviews with all 32 participants. Document analysis was also undertaken, focusing on the National Policy on the Environment, the EE curriculum, and the Higher Education Policy of 2019.

Key findings

Considering Zambia's vulnerability to environmental challenges such as climate-induced droughts, floods, pollution, and various ecological concerns, the findings of this study indicate a serious urgency of eco-capabilities for sustainability. The study extrapolated the following educational and eco-capabilities that are necessary for advancing environmental sustainability in Zambia as follows:

Eco-capabilities for students/graduates to be ES agents

<i>Eco-capabilities</i>	<i>Indicative valued functionings</i>
Scientific eco-knowledge	<ul style="list-style-type: none">• Being able to comprehend natural systems and ecological complexities
Digital skills	<ul style="list-style-type: none">• Being able to use and adapt to timely technologies to foster sustainable innovations
Collaborative and community engagement	<ul style="list-style-type: none">• Being able to be inclusive and work as a collective in pursuit of sustainability
Eco-generic practical skills	<ul style="list-style-type: none">• Being able to demonstrate hands-on abilities, skills, and experience to foster positive environmental change

Intrinsic environmental empathy	<ul style="list-style-type: none"> • Being able to demonstrate biospheric traits and willingness to actively advance positive environmental change
Recognition	<ul style="list-style-type: none"> • Being understood and regarded as knowledgeable and vital contributors/role players towards environmental sustainability
Contextualised knowledge	<ul style="list-style-type: none"> • Being able to experience learning within the environment and co-construct ecological meanings based on lived experiences
Eco-entrepreneurial skills	<ul style="list-style-type: none"> • Being able to create, innovate, and run an eco-alternative 'green' business
Autonomy	<ul style="list-style-type: none"> • Being able to be self-governed and demonstrate ownership of one's agency towards advancing sustainability in one's own meaningful way

Nevertheless, while higher education environmental education has enhanced some of these valued eco-capabilities and their corresponding functionings, conversion factors persist. These factors are personal and exist within and outside the university. These factors influence not only the agentic freedoms of students and graduates but also the effective realisation of environmental sustainability. These factors highlight the need for a capability-based framework for EE in Zambia, which emphasises applicability, practicability, and practicality for environmental sustainability. However, these factors are also indicative of the dynamics that shape an enabling environment for people to flourish as agents of positive environmental change. The research indicates that policy, design, and implementation of environmental education must be underpinned and informed by environmentally and socially just-oriented beings and doings.

Recommendations

The capability framework proposed in this research advances the idea that EE can be transformative and foster agential capabilities among students, enhancing the acquisition and translation of altruistic and biospheric values, skills, and experiences necessary for realising sustainability. The following is suggested to environmental educationists, environmental activists, and policymakers:

- Strengthening linkages between universities and environmental institutions through regular liaison to allow workable community–institutional partnerships in driving sustainability agendas.
- Support students' and graduate environmentalists' involvement in environmental discourse and development through integration at local levels.
- Widen opportunities for accessibility to eco-friendly alternatives, such as introducing buybacks to improve the efficient management of hazardous waste products, enhancing green energy production within communities, and investing in environmental innovation technologies alongside legal frameworks to guide environmental processes within the country.

- Incorporate field trips, laboratory work, and hands-on projects into the course structure to enhance practical learning experiences.
- Advocate for institutional support to secure continued funding for practical learning initiatives.
- Expand funding and resources for student-led research and advocacy projects focused on sustainability.
- Implement feedback mechanisms for environmental scholars, universities, and environmental policy institutions to provide insights into effective sustainability focused on learning and action.

In exploring the eco-capabilities (opportunities and freedoms) needed to advance environmental sustainability in Zambia, the proposed capability-based framework for EE prompts us to re-evaluate the central role of EE in producing and preparing individuals to become agents for environmental sustainability. This requires a consideration of all factors at play in the teaching, learning, and acting for sustainability in the Zambian context. The critical nexus between EE and environmental sustainability has been made clear. The advancement towards a socially just world hinges on a commitment towards an environmentally just world.