

Perspective Piece: Rekindling Interest in Forestry Education in Sierra Leone

Aruna Kainyande 

Chair of Tropical and International Forestry, TU Dresden, Tharandt, Germany

Email: kainyandearuna@gmail.com

How to cite this paper: Kainyande, A. (2024). Perspective Piece: Rekindling Interest in Forestry Education in Sierra Leone. *Voice of the Publisher*, 10, 100-105. <https://doi.org/10.4236/vp.2024.102009>

Received: March 14, 2024

Accepted: May 15, 2024

Published: May 16, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This perspective piece discusses the imperative of rekindling interest in forestry education in Sierra Leone. Despite being endowed with rich natural resources and biodiversity, Sierra Leone faces challenges stemming from the exploitation of forest resources and outdated forestry policies. The establishment of the School of Natural Resources Management at Njala University represents a crucial intervention to address these challenges by offering forestry training to secondary school graduates. However, low enrollment in forestry programs persists due to a pervasive lack of awareness among Sierra Leonean youths regarding the importance of forestry in addressing global challenges such as climate change. The need for comprehensive reforms in secondary school curricula to integrate subjects that emphasize the contributions of forestry to national development will help empower young minds to make informed decisions.

Keywords

Forestry Education, Environmental Awareness, Environmental Stewardship, School Curriculum Reforms, Sierra Leone

1. Introduction

Sierra Leone, nestled along the Atlantic coast of West Africa, is a nation rich in both natural beauty and cultural heritage. Its diverse landscape, ranging from lush rainforests to pristine beaches as portrayed in the vegetation map (see **Figure 1**), epitomizes the aspirations of its over 8 million inhabitants who proudly call this nation home. However, beneath this veneer of natural splendor lies a pressing challenge: The sustainable management of its forests. With remarkable biodiversity, the country serves as a sanctuary for the last vestiges of the tropical

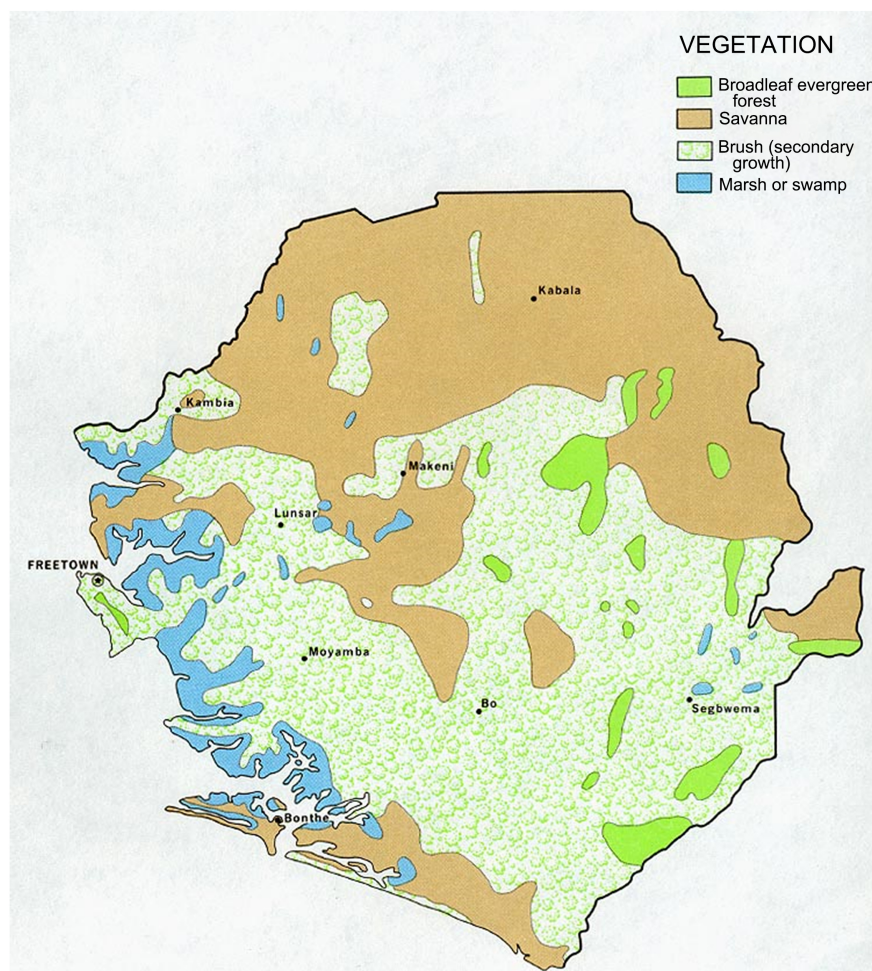


Figure 1. Vegetation map of Sierra Leone (adapted from Fayiah, 2017).

rainforest within the Upper Guinean forest ecosystem (Okoni-Williams et al., 2001). While current estimates place the nation's total forest cover at 14.7% of the land area (FAO, 2020), the accuracy of historical forest cover estimates remains widely debated (Fairhead & Leach 2003; Munro & van der Horst 2016), partly due to the lack of updated information on forests, given that the last national forest inventory was conducted four decades ago in 1975 (Wadsworth & Lebbie, 2019).

Sierra Leone's forests are not only vital to the nation's ecological balance but also to its socioeconomic development. Forests play a pivotal role in the lives of Sierra Leoneans, providing essential resources and ecosystem services that support livelihoods across the country (Jackson, 2018). From timber (e.g., charcoal, firewood, construction poles) to non-timber forest products (e.g., nuts, fruits, bushmeat, honey, medicinal plants, oils, edible leaves, shoots, resins, bamboo, rattan, etc.) to regulating climate patterns and preserving watersheds, forests are intertwined with the fabric of Sierra Leonean society. However, this symbiotic relationship is under threat due to the rampant exploitation of forest resources, driven by various factors such as population growth, agricultural expansion, ur-

banization and illegal logging (Alieu, 2001; Kainyande et al., 2022). The consequences of this exploitation are stark: biodiversity loss, soil degradation, and exacerbated climate change impacts, posing significant challenges to Sierra Leone's sustainable development agenda.

2. Main Perspective

At the heart of this challenge lies the need for robust forest policies and effective enforcement mechanisms to ensure the sustainable management and conservation of Sierra Leone's forests. While the importance of revising existing forest policies is widely acknowledged, progress has been slow, hindered by bureaucratic bottlenecks and conflicting sectoral mandates. The current management paradigm of Sierra Leone's forestry department, a relic of the British colonial era, urgently requires modernization and institutional capacity development because it is ill-equipped to address the complex challenges facing Sierra Leone's forests in the 21st century. As a result, forest destruction and deforestation continue unabated, further exacerbating environmental degradation and threatening the well-being of future generations.

To confront these pressing challenges, Sierra Leone's forestry sector demands immediate institutional capacity reforms. Recognizing this urgent need, the establishment of the School of Forestry and Horticulture (now School of Natural Resources Management) at Njala University by the Universities Act 2005 was a significant step towards building national capacity in forestry education and research (Ikotun & Alghali, 2008; Alieu et al., 2021). The School of Natural Resources Management became fully operational in October 2007, offering undergraduate and postgraduate programs in forestry, wood science, wildlife management and horticultural sciences. Its mission is to equip the younger generation with the necessary professional training and knowledge required to sustainably manage the nation's forests (Ikotun & Alghali, 2008). The undergraduate degree in forestry spans four years, while postgraduate degrees range from 15 months for an MSc to 36 months for a PhD, respectively. Similarly, the institution offers diploma and professional certificate training programs in forestry to meet both the technical and high-level skills requirements of the national forestry sector. Moreover, by training a new generation of forestry professionals, the School of Natural Resources Management seeks to reduce Sierra Leone's reliance on costly foreign training programs. This is crucial, considering that staff from the government's forestry department have previously undergone training abroad in countries like Zimbabwe, Tanzania, South Africa, and Nigeria, imposing significant financial burdens on the government. The training mainly covered topics such as forest management, silviculture, sawmilling and saw-doctoring, forest inventory and mensuration, etc.

Despite the government's efforts to establish a citadel for forestry training, enrollment in forestry programs remains disproportionately low compared to other academic disciplines. This disparity is concerning, given the acute shortage

of trained forestry professionals needed to oversee the nation's diverse forest ecosystems (Ikotun & Alghali, 2008). To address this challenge, it is essential to understand the underlying reasons for the low enrollment and devise targeted interventions to rekindle interest in forestry education among Sierra Leonean youths, who are the nation's future leaders.

3. Personal Experiences

Reflecting on my own journey, I recall how my introduction to forestry occurred only in the final year of secondary school, moments before stepping into university. Regrettably, many of my peers share a similar experience, unaware of the pivotal role forests play in socio-economic development and environmental sustainability. While I was fortunate to receive guidance from mentors who recognized the potential of pursuing forestry education, countless others are deprived of such opportunities due to the absence of dedicated mentors and limited awareness of the forestry profession.

4. Conclusion and the Way Forward

Addressing this educational gap necessitates comprehensive reforms in secondary school curricula, integrating subjects that emphasize the invaluable contributions of forestry to national development. Equipping young minds with a nuanced understanding of forestry's role would empower them to make informed choices when selecting their undergraduate programs, potentially fostering increased enrollment in forestry and related environmental disciplines. Furthermore, proactive efforts by the School of Natural Resources Management at Njala University, government and non-governmental institutions, in organizing environmental awareness campaigns and revitalizing school nature clubs, are imperative to cultivate a culture of environmental stewardship from an early age.

In essence, the proverbial adage, "catch them young, watch them grow," encapsulates the essence of nurturing a generation of environmentally conscious citizens who appreciate the intrinsic value of forests and nature. Through concerted efforts to rekindle interest in forestry education, Sierra Leone can unlock its potential as a steward of its rich natural resource endowments, paving the way for sustainable development and prosperity.

Beyond educational reforms, fostering a conducive learning environment is essential to attract and retain students in forestry programs. This includes investing in state-of-the-art facilities, and field equipment to provide students with hands-on learning experiences and practical skills relevant to their future forestry careers. Moreover, establishing partnerships with government agencies, non-governmental organizations, and private sector stakeholders can provide students with internship opportunities, research projects, and mentorship programs, enhancing their professional development and employability upon graduation.

Furthermore, addressing socio-economic barriers to education is paramount

to ensuring equitable access to forestry education for all Sierra Leoneans. Many students face financial constraints that prevent them from pursuing higher education, particularly in specialized fields such as forestry. To address this challenge, targeted scholarship programs, and financial assistance schemes, should be implemented to support students from disadvantaged backgrounds. Additionally, promoting gender equality and inclusivity in forestry education is essential to harnessing the full potential of Sierra Leone's human capital and fostering a diverse and dynamic forestry workforce. Finally, fostering a culture of innovation and entrepreneurship among forestry students can empower them to develop creative solutions to complex forest management issues and contribute to local economic development.

5. Implications across Global Sustainable Development Goals (SDGs)

In addition to academic training, promoting continuous, lifelong learning opportunities for both personal and professional development is crucial to preparing forestry professionals for the evolving challenges of the 21st century. This includes providing opportunities for short courses, workshops, and seminars on emerging topics such as climate change adaptation, forest landscape restoration, and sustainable agroforestry practices to emphasize the profound connection between Sustainable Development Goal (SDG) 4 (Quality Education) and SDG 15 (Life on Land). Education can empower people to behave in a more environmentally conscious manner and to take proactive steps in their everyday lives to minimize their ecological footprint. The intricate relationship between economic growth and the environment requires individuals to be increasingly aware of how their productive and economic activities fuel environmental degradation. This is increasingly important as countries strive for bio-circularity pathways to decouple economic growth from natural resource consumption, a concept commonly referred to as “degrowth.”

Acknowledgments

The author extends sincere appreciation to the administration of the School of Natural Resources Management at Njala University for their efforts in preparing the future generation of foresters in Sierra Leone. Thanks to the anonymous reviewers for their comments on the earlier drafts of this perspective piece.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

Aliou, E. K. (2001). *Forestry Outlook Studies in Africa (FOSA) Sierra Leone: A Brief on the Forestry Outlook Study*. Food and Agriculture Organization of the United Nations.

<https://www.fao.org/3/ab577e/ab577e.pdf>

- Aliou, E. K., Mattia, S. B., & Kargbo, I. R. (2021). Forestry Education in Sierra Leone: Progress and Constraints in Preparing for the Job Market. *International Journal of Silviculture and Agroforestry (IJSa)*, 4, 117-121.
- Fairhead, J., & Leach, M. (2003). *Reframing Deforestation: Global Analyses and Local Realities: Studies in West Africa*. Routledge. <https://doi.org/10.4324/9780203400340>
- FAO (2020). *Global Forest Resources Assessment 2020: Sierra Leone Report*. Food and Agriculture Organization of the United Nations.
- Fayiah, M. (2017). Major Causes Leading to the Destruction of Sierra Leone Forest Estate. *Van Sangyan*, 4, 29-41.
- Ikotun, B., & Alghali, A. (2008). Efforts of Njala University at Addressing Environmental Degradation in Sierra Leone. In A. B. Temu, S. A. O. Chamshama, J. Kung'u, J. Kaboggoza, B. Chikamai, & A. Kiwia (Eds.), *New Perspectives in Forestry Education* (pp. 175-188). ICRAF.
- Jackson, E. A. (2018). Political Economy of Forest Ecology in Sierra Leone: A Focus on the Western Area Peninsular Forest (WAPFoR). *Postmodern Openings*, 9, 63-90. <https://doi.org/10.18662/po/06>
- Kainyande, A., Auch, E. F., & Okoni-Williams, A. D. (2022). The Socio-Economic Contributions of Large-Scale Plantation Forests: Perceptions of Adjacent Rural Communities in the Northern Province of Sierra Leone. *Trees, Forests and People*, 10, Article ID: 100329. <https://doi.org/10.1016/j.tfp.2022.100329>
- Munro, P. G., & van der Horst, G. (2016). Contesting African Landscapes: A Critical Reappraisal of Sierra Leone's Competing Forest Cover Histories. *Environment and Planning D: Society and Space*, 34, 706-724. <https://doi.org/10.1177/0263775815622210>
- Okoni-Williams, A. D., Thompson, H. S., Wood, P., Koroma, A. P., & Robertson, P. (2001). *Sierra Leone. Important Bird Areas in Africa and Associated Islands: Priority Sites for Conservation* (pp. 769-778). Pisces Publications and Birdlife International (Birdlife Conservation Series No 11).
- Wadsworth, R. A., & Lebbie, A. R. (2019). What Happened to the Forests of Sierra Leone? *Land*, 8, Article No. 80. <https://doi.org/10.3390/land8050080>