

Journal of Conflict Management & Sustainable Development



Protecting Our Endangered Species for Sustainability	Hon. Prof. Karinski Mũigua
Changing The Narrative on the Right to a Clean and Healthy Environment: Analysing	Fleria Katherine Arieno
Ecocentrism as a Possible Method of Environmental Governance in Kenya	Felix Otieno Odhiambo
Journal of Appropriate Dispute Resolution (ADR) & Sustainability Volume 2 Issue 3 Review	James Nyaguna
Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance	Murithi Antony
in Kenya: Trends, Challenges, and Best Practices	Chepkoech Charity
Problematic Overlaps and Duplication of Mandates of State and Governmental Agencies	Michael Sang
in Kenya: Proposals for Legal and Institutional Reform	
Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability	Hon. Prof. Karinski Mũigua
Lesson Study: Towards an Improved Instruction in STEM Education in Junior Secondary	Dr. Rodgers Cherni Dr. Simon Kiplenei Dr. Wainie Waiyaki
Schools in Kenya	
Book review: Towards Human Rights and Prosperity for All	Mwiti Murithi
Management of Industrial Wastewater in Kenya: Case study of Mavoko	Catherine Samitta
Does the Law Work? A Case of Kenyan Prison Congestion and the Witchcraft Act	Hon. Mathou Njagi
Fostering Sustainable Lifestyles for Posterity	Hon. Prof. Karinski Mũigua
Legislating to Protect and Compensate Whistleblowers in Kenya: An Appraisal of the	Michael Sang
Proposed Whistleblower Protection Bill, 2023	
The Phenomena of Resource Curse and How to Navigate around it	Bena Bol Madut Ayii
Primary Teacher Education and Kenya's Vision 2030: The Lacuna in the Transformation	Dr. Cherni, Rodgers, Dr. Simon Kiplenei Dr. Wainie Waiyaki
Agenda	
Mitigating the Environmental Impact of Oil: Strategies for Sustainable Development	Paul DheI Gum
The Implications of Implementing Kenya's Electronic Travel Authorisation (ETA) System:	Michael Sang
A Comparative Appraisal	



Journal of Conflict Management and Sustainable Development

Volume 11 Issue 5

2024

Journal of Conflict Management and Sustainable Development

Typesetting by:

Anne W. Kiramba
P.O. Box 60561 - 00200,
Tel: +254 737 662 029,
Nairobi, Kenya.

Printed by:

Mouldex Printers
P.O. Box 63395,
Tel - 0723 366839,
Nairobi, Kenya.

Published by:

Glenwood Publishers Limited
P.O. Box 76115 - 00508
Tel +254 2210281,
Nairobi, Kenya.

© Glenwood Publishers Limited

All rights reserved. No article published in this journal may be reproduced, transmitted in any form, stored in any retrieval system of any nature without prior written permission of the copyright holder. The views expressed in each article are those of the contributors and not necessarily those of Glenwood Publishers Limited.

Editorial Board

Hon. Prof. Kariuki Muigua
Managing Editor

Ngararu Maina
Salome Karimi Ngore
Endoo D. Chepkemei

Editorial Team

Emmanuel Mwati Muriithi
Anne Wairimu Kiramba
Grace Chelagat-Tanah
James Ngotho Kariuki
Silver Andrew Ouma
Natasha W. Kahungi
Anthony Lujanje
Linda Namiinda
Paula M. Kilusi

Advisory Board

Hon. Dr. Wilfred A. Mutubwa
Dr. Lilian Namuma S. Kong'ani
Dr. Kenneth Wyne Mutuma
Dr. Johana Kambo Gathongo
Dr. Felix Otieno Odhiambo
Dr. Jane Mutheu Mutune
James Ndung'u Njuguna
Dr. Peter Gitahi Munyi
Prof. Tom Ojienda Sc.
Abdirazak Mohamed
Dr. Naomi Njuguna
Prof. George Osanjo
Prof. Thuita Thenya
Dr. Fidele Masengo
Dr. Francis Kariuki

Editor's Note

Welcome to the *Journal of Conflict Management and Sustainable Development*, Volume 11, No.5. The Journal is an interdisciplinary publication that focuses on key and emerging themes in Conflict Management, Sustainable Development and other related fields of knowledge.

Sustainable Development has been embraced at both the global and national levels as the blue print for socio-economic development and governance. The Journal interrogates and offers solutions to some of the current concerns in the Sustainable Development Agenda. It also explores the role of Conflict Management in the attainment of Sustainable Development.

The Journal has witnessed significant growth since its launch and is now a widely cited and authoritative publication in the fields of Conflict Management and Sustainable Development. The Editorial Team welcomes feedback and suggestions from our readers across the globe to enable us to continue improving the Journal.

The Journal is peer reviewed and refereed in order to adhere to the highest quality of academic standards and credibility of information. Papers submitted to the Journal are taken through a rigorous review by our team of internal and external reviewers.

This volume contains papers on various themes including: *Protecting Our Endangered Species for Sustainability; Changing The Narrative on the Right to a Clean and Healthy Environment: Analysing Ecocentrism as a Possible Method of Environmental Governance in Kenya; Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices; Problematic Overlaps and Duplication of Mandates of State and Governmental Agencies in Kenya: Proposals for Legal and Institutional Reform; Lesson Study: Towards an Improved Instruction in Stem Education in Junior Secondary Schools In Kenya; Management of Industrial Waste water in Kenya: Case study of Mavoko; Does the Law Work? A Case of Kenyan Prison Congestion and the Witchcraft Act; Fostering Sustainable Lifestyles for Posterity; Legislating to Protect and Compensate Whistleblowers in Kenya: An Appraisal of*

the Proposed Whistleblower Protection Bill, 2023; The Phenomena of Resource Curse and How to Navigate around it; Primary Teacher Education and Kenya's Vision 2030. The Lacuna in the Transformation Agenda; Mitigating the Environmental Impact of Oil: Strategies for Sustainable Development; and The Implications of Implementing Kenya's Electronic Travel Authorisation (eTA) System: A Comparative Appraisal. The Journal also contains a book review of Towards Human Rights and Prosperity for All and a review of Journal of Appropriate Dispute Resolution (ADR) & Sustainability Volume 2 Issue 3.

We welcome feedback, comments and critique from our readers to enable us to continue improving the Journal.

I wish to thank all those who have made this publication possible including reviewers, editors and contributors.

The Editorial Team also welcomes the submission of articles to be considered for publication in subsequent issues of the Journal. Submissions can be channeled to admin@kmco.co.ke and copied to editor@journalofcmsd.net. Our readers can access the Journal online at <https://journalofcmsd.net>.

**Prof. Kariuki Muigua Ph.D, FCIArb, Ch.Arb, OGW.
Editor, Nairobi,
November, 2024.**

List of Contributors

Hon. Prof. Kariuki Muigua

Prof. Kariuki Muigua is a distinguished law scholar, an accomplished mediator and arbitrator with a Ph.D. in law from the University of Nairobi and with widespread training and experience in both international and national commercial arbitration and mediation. Prof. Muigua is a Fellow of Chartered Institute of Arbitrators (CIArb)-Kenya chapter and also a Chartered Arbitrator. He is a member of the Permanent Court of Arbitration, The Hague. He also serves as a member of the National Environment Tribunal. He has served as the Chartered Institute of Arbitrator's (CIArb- UK) Regional Trustee for Africa from 2019 -2022.

Prof. became the first winner of the Inaugural CIArb (Kenya Branch) ADR Lifetime Achievement Award 2021. He was also the winner of the ADR Practitioner of the Year Award 2021 given by the Nairobi LSK and the ADR Publisher of the Year 2021 awarded by CIArb Kenya. He was the winner of the African Arbitrator of the Year 2022 award at the 3rd African Arbitration Awards held at Kigali Rwanda beating other competitors from Egypt, Mauritius, Ethiopia, Nigeria and Kenya. The African Arbitrator of the Year award is the highest and most prestigious ADR and Arbitration Award in Africa.

Prof. is an Advocate of the High Court of Kenya of over 30 years standing and practicing at Kariuki Muigua & Co. Advocates, where he is also the senior advocate. His research interests include environmental and natural resources law, governance, access to justice, human rights and constitutionalism, conflict resolution, international commercial arbitration, the nexus between environmental law and human rights, land and natural resource rights, economic law and policy of governments with regard to environmental law and economics. Prof. Muigua teaches law at the Centre for Advanced Studies in Environmental Law and Policy (CASELAP), Wangari Maathai Institute for Peace and Environmental Studies (WMI) and the Faculty of Law, University of Nairobi.

Prof. Kariuki Muigua can be reached through muigua@kmco.co.ke or admin@kmco.co.ke

Fleria Katherine Atieno

Fleria is a finalist law student from Kenyatta University set to graduate in December 2024. She is passionate about environmental and climate change law and has worked as a research assistant with Mzalendo Trust and as an intern at the Kenya National

Commission on Human Rights. Some of the works she has contributed to include; A Compendium on Environmental Justice Cases in Kenya and an Appraisal of the Kenyan Environmental Framework and its Efficacy in Promoting Environmental Justice.

Felix Otieno Odhiambo

Felix Odhiambo holds a PhD in Law degree from the University of Dar es Salaam, a Master of Laws degree from the University of Nairobi, a Postgraduate Diploma in Law from the Kenya School of Law, a Bachelor of Laws degree from the University of Nairobi and a Bachelor of Education degree from Kenyatta University. He is an active legal practitioner who presently practices with the Law Firm of Japheth Kenvine Felix & Smith Advocates LLP. Additionally, he is a Lecturer of Law at Kenyatta University with research interests in, among other areas, Natural Resources Law, International Environmental Law and Climate Change Law.

Felix can be reached through felixkinmath@gmail.com

James Ndungu

James is an Advocate of the High Court of Kenya. He is a law lecturer at Embu University. He practices law at Kariuki Muigua & Co Advocates as the lead lawyer. He holds a Master of Laws (LLM) degree from University of Nairobi and a Bachelor of Laws (LLB) degree from Mount Kenya University. He holds a Post Graduate Diploma from the Kenya School of Law and a Higher Diploma in Management, Kenya Institute of Management (KIM). He has a vast knowledge of the legal practice of conveyancing, civil and criminal law in Kenya.

A Member of Chartered Institute of Arbitrators (MCI Arb). He is a certified mediator by MTI East Africa. A church Council Member, Worldwide Gospel Church of Kenya (Buruburu). James, has special interests in Alternative Dispute Resolution, Intellectual Property and Constitutional law and conflict management and Sustainable Development.

His has published the following articles; *Adopting Information Technology in the Legal Profession in Kenya as a Tool of Access to Justice, Towards Effective Management of Community Land Disputes in Kenya for Sustainable Development, Mediation as a Tool of Conflict Management in Kenya: Challenges and Opportunities, Applicability of Arbitration in Management of Community Land Disputes, Arbitration as a Tool for Management of Community Land Conflicts in Kenya*

James can be reached through njuguna@kmco.co.ke

Murithi Antony

Murithi Antony is a dynamic and forward-looking legal professional specializing in climate and environmental policy, legal compliance, and economic law. With a strong

focus on legal and policy regulation, dispute resolution, and governance, he brings a strategic approach to addressing complex legal challenges. His expertise spans policy development, regulatory compliance, risk management, sustainable business practices, grant writing, and project implementation. He is committed to achieving positive outcomes through sound legal practices and innovative problem-solving.

Murithi has undertaken extensive training and obtained certifications in climate change and environmental issues, leadership, project management and resource mobilization, and has served in various capacities in youth organizations dedicated to climate action. He currently serves as the National Director for International Students Environmental Coalition (ISEC Kenya) and has contributed to high-level research projects as a research assistant in prominent firms. Currently, he works as a Research Assistant at Centre for Climate Change Adaptation and Mitigation (CCCAM) – University of Embu.

Furthermore, Murithi is a published writer with his work featured in various peer-reviewed journals, both locally and internationally. He is also experienced in brand strategy, along with skills in graphic design, web design, market research, crafting brand strategy, copywriting, and is the Founder and Chief Creative Officer (CCO) at MuriTech Solutions.

Above it all, Murithi is committed to the principles of servant leadership, striving to make a positive impact in the world in every possible way.

He can be contacted through amurithi326@gmail.com

Charity Chepkoech

Charity Chepkoech is a finalist law student at University of Embu and a Research Assistant at the Center for Climate Change Adaptation and Mitigation (CCCAM) University of Embu. She is experienced in project research and implementation and serves as the Projects Director at International Students Environmental Coalition (ISEC) Kenya. With a passion for environmental law and sustainable development, Charity focuses on addressing the complex legal frameworks and policies needed to support climate action. Her academic background in law provides a unique perspective on the intersection of legal policy and climate justice, equipping her to explore innovative solutions to climate challenges.

In addition, Charity is an active advocate for youth involvement in sustainability, frequently participating in and moderating high-impact discussions on climate action and sustainable development. She has facilitated webinars, including the recent "Sustainable Development Goals: A Blueprint for Global Transformation," where she engaged youth and experts alike in exploring actionable steps toward a more resilient

future. Charity's work exemplifies her commitment to fostering inclusive, informed dialogues on climate resilience and sustainable progress.

She can be contacted through chepkoecharity185@gmail.com

Michael Sang

The Author holds a Master of Laws (LLM) in International Law from the University of Cape Town, South Africa and a Bachelor of Laws (LLB) from Moi University, Eldoret. The author is also an Advocate of the High Court with a Post Graduate Diploma in Law and employed in public service as a Prosecutor currently holding the position of **Acting Deputy Director of Public Prosecutions (Ag. DDPP)**.

The author is in charge of the **Department of Regional, County Affairs and Regulatory Prosecutions** and also the **Head of the Counter - Terrorism and Transnational Organized Crimes Division** at the Office of the Director of Public Prosecutions and is based in Nairobi.

The author can be contacted through emails sang7michael@gmail.com or michael.sang@odpp.go.ke

Dr Rodgers Gowon Cherui

Dr. Rodgers Gowon Cherui is an Academician and Teacher Educator with over 25 years' experience in teaching. He holds a Phd in Education Planning (UOE), Med in Education Management and Planning (KU) and Bed Science (MU). His specialization is in Education planning, policy formulation, development and Implementation, leadership, Research and Policy analysis.

His research interests are in Gender education, Education for the marginalized communities, Value based education and science teacher's education. He has Presented academic papers in various conferences and published extensively in refereed journals. He is a member of Kenya Association of Education Administrators and Managers-KAEAM and currently a lecturer at Daystar University, Department of Education.

He can be reached through rcherui@daystar.ac.ke 0725587242

Dr Simon Kipkenei

Dr Simon Kipkenei holds Doctor of Philosophy Degree in Educational Planning and management of Masinde Muliro University of Science and Technology, Bachelor of Education Degree in Education Arts of Moi University, Master of Philosophy Degree in Educational planning of Moi University. He is a Lecturer of Educational Planning and Management, Kibabii University.

He is a Member of Kibabii University Graduate School Board. He is also a member of the

Institute of Gender and Development Studies. He is a Reviewer with International Journal of Research and Innovation in Social Science (IJRISS).

Dr Simon can be reached through skipkenei@kibu.ac.ke

Dr. Winnie Waiyaki

Dr. Winnie Waiyaki holds a Bachelor of Laws degree, LL.B. from the University of Nairobi in 1992. She thereafter obtained a Diploma in Law at the Kenya School of Law in 1994 and practiced law from 1994 to 2010. Interactions with clients exposed her to the whole area of mental health and she changed her career to Counselling Psychology for which she obtained a Master's in Counselling Psychology from Daystar University in 2010. After three years of practice, her experience further opened her eyes to a wider area of need in mental health, which led her to pursue a PhD in Clinical Psychology in her alma mater, where, from 2016 to date, she teaches and supervises post graduate students in the Psychology Department. Accordingly, Dr. Waiyaki practices psychotherapy for a wide range of problems among individuals, groups, couples and families in a practice called Wema Psychological Services.

This includes conducting psychological assessment for personality and mental disorders and treating them with various models of psychology. Although she is not in active legal practice anymore, her knowledge of the law intersects well with psychology, giving her a multidisciplinary edge in her interactions.

Additionally, she is a certified mediator skilled in conducting mediation among individuals and families in conflict. Her overarching desire in her practice and in academia is to engage in multi-disciplinary research that is relevant, applicable, and impactful in the African context. Dr. Waiyaki is a Member of the Law Society of Kenya and the Kenya Counselling and Psychologists Association.

Dr. Winne can be reached through wwaiyaki@daystar.ac.ke or on +254722555001

Mwati Muriithi

Mwati Muriithi is an Advocate of the High Court of Kenya, an Associate member of the Chartered Institute of Arbitrators (ACI Arb) and a Legal Researcher. He holds a Bachelor of Laws (LL. B) degree from Kenyatta University and a Post-Graduate Diploma in Law from Kenya School of Law. He is currently an associate at the firm of Kariuki Muigua & Co. Advocates. His interests include arbitration, conveyancing, civil litigation, probate and succession, constitutional law and commercial litigation.

Mwati can be reached through: emwati96@gmail.com

Catherine Sanitta

The author holds a Master of laws degree (LIM) in Environmental and Natural resources law and a Bachelor of Laws degree both from the University of Nairobi, Kenya. The author is an environmental law consultant and also an advocate of the High Court of Kenya with a post graduate diploma in law.

Sanitta, is a senior state counsel at the Office of the Attorney General of Kenya, heading a regional department in Embu, a (part time) lecturer at the University of Embu, School of Law; a climate change law researcher with particular interests in the loss and damage fund area as well as the coal exploration and exploitation area, for her PhD and an AI enthusiast.

The author can be contacted at csanitta@gmail.com

Hon. Muthoni Njagi

Muthoni Njagi is a Principle Magistrate working in the Kenyan Judiciary and also serves as the National Community Service Orders (CSO) Coordinator. She has worked in the Judiciary for over 12 years in various courts. She has a Bachelor of Laws and Masters in Law degrees from the University of Nairobi and is currently pursuing her Master of Arts in Counselling Psychology in Daystar University.

Hon Muthoni can be reached through muthoni.njagi@court.go.ke

Bona Bol Madut Ayii

BONA BOL MADUT AYII holds LL. B, LL. M from University of Juba and LL.M in environmental and Natural Resources Law from University of Nairobi. He is an Advocate of the High Court of South Sudan and a Managing partner of The Ancestral Advocates LF, South Sudan. Mr. Ayii is a researcher on the Impact of climate change on the economies of the developing nations. Mr. Ayii is a lecturer at Starford International University, South Sudan.

He has published the following articles

- Right to a clean and healthy environment: reality or rhetoric?
- The significance of public participation in environmental conservation in South Sudan.
- Climate change and its impact on health and economy of South Sudan.
- Oil exploration in South Sudan and environmental sustainability.

Bona is reachable via bolayii93@gmail.com

Paul Dhel Gum

Paul Dhel holds a Bachelor of Laws, University of Nairobi, Bachelor of Applied Science - University of Juba. Paul Dhel Gum is an Associate Lawyer in South Sudan
Paul Dhel Gum can be reached through pauldhel82@gmail.com

Journal of Conflict Management and Sustainable Development

Volume 11 Issue 5 2024

Content	Author	Page
Protecting Our Endangered Species for Sustainability	Hon. Prof Kariuki Muigua	1
Changing The Narrative on the Right to a Clean and Healthy Environment: Analysing Ecocentrism as a Possible Method of Environmental Governance in Kenya	Fleria Katherine Atieno Felix Otieno Odhiambo	16
Journal of Appropriate Dispute Resolution (ADR) & Sustainability Volume 2 Issue 3 Review	James Njuguna	51
Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices	Murithi Antony Chepkoech Charity	54
Problematic Overlaps and Duplication of Mandates of State and Governmental Agencies in Kenya: Proposals for Legal and Institutional Reform -	Michael Sang	82
Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability	Hon. Prof Kariuki Muigua	108
Lesson Study: Towards an Improved Instruction in Stem Education in Junior Secondary Schools in Kenya	Dr Rodgers Cherui Dr Simon Kipkenei Dr. Winnie Waiyaki	139
Towards Human Rights and Prosperity for All book review	Mwati Muriithi	152
Management of Industrial Wastewater in Kenya: Case study of Mavoko	Catherine Sanitta	155
Does the Law Work? A Case of Kenyan Prison Congestion and the Witchcraft Act	Hon. Muthoni Njagi	177
Fostering Sustainable Lifestyles for Posterity	Hon. Prof Kariuki Muigua	187
Legislating to Protect and Compensate Whistleblowers in Kenya: An Appraisal of the Proposed Whistleblower Protection Bill, 2023	Michael Sang	205
The Phenomena of Resource Curse and How to Navigate around it	Bona Bol Madut Ayii	233
Primary Teacher Education and Kenya's Vision 2030. The Lacuna in the Transformation Agenda	Dr. Cherui Rodgers Dr. Simon Kipkenei Dr. Winnie Waiyaki	244
Mitigating the Environmental Impact of Oil: Strategies for Sustainable Development	Paul Dhel Gum	258
The Implications of Implementing Kenya's Electronic Travel Authorisation (eTA) System: A Comparative Appraisal	Michael Sang	282

Protecting Our Endangered Species for Sustainability

By: Hon. Prof. Kariuki Muigua*

Abstract

This paper critically examines the idea of protecting our endangered species. It defines endangered species and highlights some of the factors threatening their existence. The paper further discusses the efficacy of the steps taken at the global, regional, and national levels towards protecting endangered species. The paper suggests measures towards protecting our endangered species for sustainability.

1.0 Introduction

The concept of sustainability entails creating and maintaining the conditions under which humanity and nature can exist in productive harmony to support present and future generations¹. This is envisaged in the ideal of Sustainable Development which seeks to promote development that meets the needs of the present without compromising the ability of future generations to meet their own needs². The ideal of Sustainable Development aims to achieve sustainability by promoting environmental protection, economic development and social progress³.

The United Nation's 2030 Agenda for Sustainable Development represents the global

* PhD in Law (Nrb), FCI Arb (Chartered Arbitrator), OGW, LL. B (Hons) Nrb, LL.M (Environmental Law) Nrb; Dip. In Law (KSL); FCPS (K); Dip. in Arbitration (UK); MKIM; Mediator; Consultant: Lead expert EIA/EA NEMA; BSI ISO/IEC 27001:2005 ISMS Lead Auditor/ Implementer; ESG Consultant; Advocate of the High Court of Kenya; Professor at the University of Nairobi, Faculty of Law; Member of the Permanent Court of Arbitration (PCA) [May, 2024].

¹ United States Environmental Protection Agency., 'What is Sustainability?' Available at <https://www.epa.gov/sustainability/learn-about-sustainability> (Accessed on 11/05/2024)

² World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

³ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' International Sustainable Development Law., Vol 1

vision for sustainability⁴. It sets out a shared blue print for peace and prosperity for people and the planet in the quest towards the ideal of Sustainable Development⁵. The agenda envisions attainment of the ideal of Sustainable Development through 17 Sustainable Development Goals (SDGs) which seek to strike a balance between social, economic and environmental facets of sustainability⁶.

The need for sustainability has become pertinent in light of problems facing the planet including climate change, pollution, and loss of biodiversity together with issues of poverty, increasing disparity between societies and the tensions brought by social inequalities⁷. The United Nations Environment Programme notes that environmental problems facing the planet including the triple planetary crisis of climate change, biodiversity loss, and pollution have heightened the importance of forging a new relationship between people and the planet towards achieving sustainability⁸. Establishing harmony between humanity and nature is therefore a key agenda in achieving sustainability⁹. One way through which this goal can be realized is protecting our endangered species¹⁰. It has been noted that

⁴ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 11/05/2024)

⁵ Ibid

⁶ Ibid

⁷ Giovannoni. E., & Fabietti. G., 'What Is Sustainability? A Review of the Concept and Its Applications.' In: Busco, C., Frigo, M., Riccaboni, A., Quattrone, P. (eds) Integrated Reporting. Springer, Cham. Available at https://doi.org/10.1007/978-3-319-02168-3_2 (Accessed on 11/05/2024)

⁸ United Nations Environment Programme., 'The Triple Planetary Crisis: Forging a New Relationship Between People and the Earth' Available at <https://www.unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth> (Accessed on 11/05/2024)

⁹ Ibid

¹⁰ DGB Group., 'Why Should Endangered Species be Protected?' Available at <https://www.green.earth/blog/why-should-endangered-species-be-protected#:~:text=Protecting%20endangered%20species%20is%20crucial,valuable%20resources%20for%20human%20populations> (Accessed on 11/05/2024)

protecting endangered species is crucial for the preservation of biodiversity and the maintenance of healthy ecosystems¹¹.

This paper critically examines the idea of protecting our endangered species. It defines endangered species and highlights some of the factors threatening their existence. The paper further discusses the efficacy of the steps taken at the global, regional, and national levels towards protecting endangered species. The paper suggests measures towards protecting our endangered species for sustainability.

2.0 Protecting Endangered Species: Promises and Challenges

An endangered species is an animal or plant that is considered to be at risk of extinction¹². Endangered species also refers to those plants and animals that have become so rare they are in danger of becoming extinct¹³. According to the International Union for Conservation of Nature (IUCN), more than 44,000 species are threatened with extinction¹⁴. It has been noted that human activities such as habitat destruction, over-exploitation of natural resources, and pollution have led to the decline of many species¹⁵. As the human population continues to grow and urbanise, natural habitats are being destroyed and fragmented¹⁶. This results in the loss of food, shelter, and breeding sites for many species resulting in their decline¹⁷. Endangered species are therefore plant or animal species at risk of becoming extinct due to various factors such as habitat loss, changing environmental conditions, poaching, and pollution¹⁸.

¹¹ Ibid

¹² National Wildlife Federation., 'Endangered Species' Available at <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Understanding-Conservation/Endangered-Species> (Accessed on 13/05/2024)

¹³ United States Environmental Protection Agency., 'What are Endangered and Threatened Species?' Available at <https://www.epa.gov/endangered-species/learn-more-about-threatened-and-endangered-species> (Accessed on 13/05/2024)

¹⁴ International Union for Conservation of Nature., 'The IUCN Red List of threatened Species' Available at <https://www.iucnredlist.org/> (Accessed on 13/05/2024)

¹⁵ DGB Group., 'Why Should Endangered Species be Protected?' Op Cit

¹⁶ Ibid

¹⁷ Ibid

¹⁸ DGB Group., 'The Importance of Saving Endangered Species for a Sustainable Future' Available at <https://www.green.earth/endangered-species> (Accessed on 13/05/2024)

According to the United Nations Environment Programme, the planet is dealing with unprecedented threats to wildlife and biodiversity¹⁹. It points out that the loss of habitat from farming, mining and new urban developments has dramatically decreased the natural space for wildlife²⁰. In addition, UNEP notes that human demand for wildlife products which generates as much as US\$23 billion annually has resulted in many wildlife species being at risk of extinction²¹. According to UNEP, an estimated one million plant and animal species are threatened with extinction²².

Protecting our endangered species is vital in fostering sustainability. UNEP correctly notes that biological diversity is the core of healthy and productive ecosystems and the benefits that humans gain from a thriving natural environment are vast²³. Protecting endangered species is vital in maintaining biodiversity²⁴. The loss of biodiversity can have far-reaching consequences for both the environment and human populations²⁵. It has been noted that some endangered species are the source of vital resources including food and medicine²⁶. The extinction of such species can therefore result of loss of vital resources²⁷.

Further, protecting endangered species is vital since they play a significant role

¹⁹ United Nations Environment Programme., 'Three ways the United Nations Environment Programme works to address illegal trade in wildlife' Available at [https://www.unep.org/news-and-stories/story/three-ways-united-nations-environment-programme-works-address-illegal-trade#:~:text=The%20United%20Nations%20Environment%20Programme%20\(UNEP\)%20hosts%20the%20Convention%20on,of%20plants%20to%20prevent%20overexploitation.](https://www.unep.org/news-and-stories/story/three-ways-united-nations-environment-programme-works-address-illegal-trade#:~:text=The%20United%20Nations%20Environment%20Programme%20(UNEP)%20hosts%20the%20Convention%20on,of%20plants%20to%20prevent%20overexploitation.) (Accessed on 13/05/2024)

²⁰ Ibid

²¹ Ibid

²² Ibid

²³ Ibid

²⁴ DGB Group., 'Why Should Endangered Species be Protected?' Op Cit

²⁵ Ibid

²⁶ Ibid

²⁷ Ibid

in maintaining ecosystem balance and diversity²⁸. For instance, some endangered species help with pollination and seed dispersal, while others regulate the population of other organisms in the food chain²⁹. Endangered species therefore provide essential ecosystem services such as pollination, seed dispersal, and regulating the population of other organisms in the food chain³⁰. In addition, endangered species also have important medicinal, cultural, and aesthetic values³¹.

It has been argued that the conservation of endangered species is not just a matter of ethical responsibility, but it is also a fundamental necessity for the health of our planet³². Preserving endangered species safeguards the intricate balance of life on the planet therefore ensuring a healthier and more secure future for ecosystems and people³³. It has been noted that when populations decline, this signifies underlying issues such as habitat destruction, pollution, or climate change, which, if unaddressed, can threaten the stability of the entire ecosystem and many other species³⁴. Protecting endangered species is therefore necessary for sustainability.

The need to protect endangered species is recognized at the global, regional, and national levels. At the global level, SDG 15 under the 2030 Agenda for Sustainable Development urges states to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss³⁵. In order to protect

²⁸ DGB Group., 'The Importance of Saving Endangered Species for a Sustainable Future' Op Cit

²⁹ Ibid

³⁰ Ibid

³¹ Ibid

³² International Fund for Animal Welfare., 'Why Should we Protect Endangered Animals?' Available at <https://www.ifaw.org/international/journal/why-should-we-protect-endangered-animals> (Accessed on 13/04/2024)

³³ Ibid

³⁴ Ibid

³⁵ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

endangered species, SDG 15 sets out several targets which include the need for states to take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity, and protect and prevent the extinction of threatened species³⁶. It also requires states to take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products³⁷. Achieving these targets is key in protecting our endangered species for sustainability.

In addition, the IUCN maintains a *Red List of Threatened Species*³⁸. IUCN notes that the Red List has evolved to become the world's most comprehensive information source on the global conservation status of animal, fungi and plant species³⁹. The IUCN Red List has been identified as a critical indicator of the health of the world's biodiversity⁴⁰. It is a powerful tool to inform and catalyze action for biodiversity conservation and policy change, critical to protecting the natural resources necessary for survival of life on the planet⁴¹. The IUCN Red List provides information about range, population size, habitat and ecology, use and/or trade, threats, and actions that are necessary to inform effective conservation decisions⁴². It has been noted that the assessments published in the IUCN Red List are used by governments, nongovernmental organizations (NGOs), and multilateral environmental agreements⁴³. The assessments under the IUCN Red List drive conservation action and funding⁴⁴. In addition, it has been noted that the way a species is assessed under the IUCN Red List can also determine whether such species deserve protection under two international

³⁶ Ibid, SDG 15.5

³⁷ Ibid, SDG 15.7

³⁸ International Union for Conservation of Nature., 'The IUCN Red List of Threatened Species' Available at <https://www.iucnredlist.org/> (Accessed on 13/04/2024)

³⁹ Ibid

⁴⁰ Ibid

⁴¹ Ibid

⁴² Ibid

⁴³ International Institute for Sustainable Development., 'Protecting Endangered Species' Available at https://www.iisd.org/system/files/2022-02/still-one-earth-endangered-species_0.pdf (Accessed on 13/05/2024)

⁴⁴ Ibid

treaties aimed at species conservation: the *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* and the *Convention on the Conservation of Migratory Species of Wild Animals*⁴⁵.

CITES regulates international trade in roughly 5,800 species of animals and 35,000 species of plants to prevent overexploitation⁴⁶. It recognizes that wild fauna and flora are of fundamental value from aesthetic, scientific, cultural, recreational and economic points of view hence the need for their effective conservation⁴⁷. Appendix I of CITES includes all species threatened with extinction which are or may be affected by trade⁴⁸. According to CITES, trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances⁴⁹. Appendix II of CITES includes all species which although not necessarily threatened with extinction at the moment may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival⁵⁰. CITES requires states to take appropriate measures to regulate trade in endangered species of wild fauna and flora including penalizing trade or possession of such species, and providing for the confiscation or return to the state of export of such species⁵¹. CITES is therefore an important legal instrument aimed at protecting endangered species from the threats of international trade. CITES guides nations across the world on how to protect threatened species by regulating and monitoring their trade⁵². The Convention establishes a framework for countries to cooperate with each other to ensure that plant and animal species are not depleted by international

⁴⁵ Ibid

⁴⁶ United Nations Environment Programme., 'Three ways the United Nations Environment Programme works to address illegal trade in wildlife' Op Cit

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ Ibid

⁵⁰ Ibid

⁵¹ Ibid

⁵² International Fund for Animal Welfare., 'What is CITES?' Available at <https://www.ifaw.org/international/journal/what-cites> (Accessed on 13/05/2024)

demand⁵³. It has been noted that without CITES, wildlife being imported and exported across borders would be subjected to inconsistent protections⁵⁴. It is therefore necessary to effectively implement CITES in order to ensure effective protection of endangered species.

The *Convention on the Conservation of Migratory Species of Wild Animals*⁵⁵ acknowledges the need for states to take action to avoid any migratory species becoming endangered. The Convention requires states to: conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction⁵⁶; prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species⁵⁷; to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating, already introduced exotic species⁵⁸. This Convention is vital since it recognizes that states must be the protectors of migratory species that live within or pass through their national jurisdictions and aims to conserve terrestrial, marine, and avian migratory species throughout their ranges⁵⁹. Implementing this Convention is key in protecting migratory species of wild animals from danger of extinction.

At a regional level, the *African Convention on the Conservation of Nature and Natural*

⁵³ Ibid

⁵⁴ Ibid

⁵⁵ Convention on the Conservation of Migratory Species of Wild Animals., Available at https://www.cms.int/sites/default/files/instrument/CMS-text.en_.PDF (Accessed on 13/05/2024)

⁵⁶ Ibid, article III (4)

⁵⁷ Ibid

⁵⁸ Ibid

⁵⁹ United Nations Environment Programme., 'Fourteenth Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP 14)' Available at <https://www.unep.org/events/conference/fourteenth-meeting-conference-parties-convention-conservation-migratory-species> (Accessed on 13/05/2024)

*Resources*⁶⁰ sets out the need to protect threatened species on the continent. The Convention defines threatened species to include critically endangered, endangered, and vulnerable species⁶¹. According to the Convention, a species is critically endangered when the best available evidence indicates that it is considered to be facing an extremely high risk of extinction in the wild⁶². It further states that a species is endangered when the available evidence indicates that it is considered to be facing a very high risk of extinction in the wild⁶³. In addition, the Convention notes that a species is vulnerable when the best available evidence indicates that it is considered to be facing a high risk of extinction in the wild⁶⁴. The Convention requires states to establish and implement policies for the conservation and sustainable use of such resources with particular attention being paid to socially, economically and ecologically valuable species, which are threatened⁶⁵. In addition, it requires African states to identify species that are threatened or may become so, and provide them accordingly with appropriate protection⁶⁶. In order to achieve this goal, the Convention requires states to identify the factors that are causing the depletion of animal and plant species which are threatened or which may become so, with a view to their elimination, and to accord a special protection to such species, whether terrestrial, freshwater or marine, and to the habitat necessary for their survival⁶⁷. It has been noted that several species in Africa are facing the threat of extinction including the African elephant, the African black rhino, and the Eastern and Western gorilla⁶⁸. It is therefore necessary to implement the *African Convention on the Conservation of*

⁶⁰ African Convention on the Conservation of Nature and Natural Resources., Available at https://au.int/sites/default/files/treaties/41550-treaty-Charter_ConservationNature_NaturalResources.pdf (Accessed on 13/05/2024)

⁶¹ Ibid, Annex1

⁶² Ibid

⁶³ Ibid

⁶⁴ Ibid

⁶⁵ Ibid

⁶⁶ Ibid

⁶⁷ Ibid, article X

⁶⁸ International Fund for Animal Welfare., '20 of the Most Endangered Animals and Wildlife in Africa' Available at <https://www.ifaw.org/international/journal/20-most-endangered-animals-wildlife-africa> (Accessed on 13/05/2024)

Nature and Natural Resources in order to protect endangered species in Africa.

At a national level, the *Wildlife Conservation and Management Act of Kenya*⁶⁹ requires the state to ensure effective protection and management of endangered and threatened species, ecosystems, and habitats⁷⁰. The Sixth Schedule of the Act identifies critically endangered, vulnerable, nearly threatened and protected species in Kenya⁷¹. According to the Act, the critically endangered species in Kenya include the black rhinoceros, the eastern red colobus, the roan antelope, and the sable antelope⁷². Further, it identifies endangered species to include the white rhino, the African wild dog, the African elephant, the African lion, and the leopard⁷³. The Act makes it an offence to kill, injure, torture or molest a critically endangered, or endangered species in Kenya⁷⁴. A person who commits such an offence shall be liable upon conviction to a term of imprisonment of not less than five years⁷⁵. Protection of endangered species is therefore a key agenda in Kenya as set out under the *Wildlife Conservation and Management Act of Kenya*.

From the foregoing, it is evident that protecting endangered species is a major concern at the global, regional, and national levels. These species serve as the bedrock of ecosystems, contributing to the conditions necessary for life, both individually and collectively⁷⁶. For example, pollinators like bees and butterflies are vital for the reproduction of many plants, including essential food crops⁷⁷. Therefore decline in their populations can lead to reduced crop yields and even

⁶⁹ *Wildlife Conservation and Management Act of Kenya*, No. 47 of 2013., Government Printer, Nairobi

⁷⁰ *Ibid*

⁷¹ *Ibid*

⁷² *Ibid*

⁷³ *Ibid*

⁷⁴ *Ibid*, article 92 (1)

⁷⁵ *Ibid*

⁷⁶ *Protecting the Endangered Species from Extinction*., Available at <https://www.linkedin.com/pulse/protecting-endangered-species-from-extinction-anumeenacare/> (Accessed on 13/05/2024)

⁷⁷ *Ibid*

crop failures thereby threatening sustainability of both humanity and nature⁷⁸. Similarly predators such as wolves and big cats help maintain the balance of other species within their ecosystems⁷⁹. In addition, it has been noted that some of the endangered wildlife species, throughout their interaction with the environment, are the missing link between biodiversity and climate⁸⁰. These species play a crucial role in controlling the planet's carbon cycle across a variety of ecosystems through foraging, depositing nutrients and organic carbon, dispersing seeds among other functions⁸¹. Endangered species with high potentials for carbon capture and storage include the African buffalo, white rhino, puma, dingo, primates, hornbills, fruit bats, seals, sea turtles⁸².

3.0 Conclusion

Protecting endangered species is key for sustainability since biological diversity is the core of healthy and productive ecosystems⁸³. However, factors such as habitat degradation and destruction, poaching and illegal trade in wild fauna and flora, and pollution are resulting in the unprecedented loss of species⁸⁴. In addition, human activities are resulting in the destruction of nature for housing, agriculture, industry, leaving no space for biodiversity⁸⁵. Further, it has been noted that land use changes, resource exploitation, climate change, and pollution contribute to the decline of global biodiversity⁸⁶. It is necessary to address these challenges in order to protect our endangered species. Among the key approaches towards this end include habitat restoration⁸⁷. This entails restoring

⁷⁸ Ibid

⁷⁹ Ibid

⁸⁰ Cross. D., 'Rewilding Endangered Species can Help us Mitigate Climate Change' Available at <https://www.sustainability-times.com/environmental-protection/rewilding-endangered-species-can-help-us-mitigate-climate-change/> (Accessed on 13/05/2024)

⁸¹ Ibid

⁸² Ibid

⁸³ United Nations Environment Programme., 'Three ways the United Nations Environment Programme works to address illegal trade in wildlife' Op Cit

⁸⁴ Ibid

⁸⁵ Protecting the Endangered Species from Extinction., Op Cit

⁸⁶ Ibid

⁸⁷ DGB Group., 'Why Should Endangered Species be Protected?' Op Cit

degraded ecosystems to their natural state⁸⁸. This can be achieved by restoring forests, wetlands, and other ecosystems that have been destroyed by human activities⁸⁹. Habitat restoration can help endangered species by providing them with the food, shelter, and breeding sites they need for survival⁹⁰. It is also vital to raise awareness, enforce laws and enlist the support of local communities to stop the illegal trade in wildlife⁹¹. It is therefore necessary for states to strengthen their environmental governance to meet CITES requirements to combat illegal trade in wildlife⁹².

Protecting endangered species also requires negative practices that threaten the existence of these species to be combated⁹³. These activities include poaching, pollution, and the introduction of invasive species to ecosystems⁹⁴. In addition, it has been noted that species conservation efforts should expand to include many more species that are lesser known and serve important ecosystem services⁹⁵. It is also vital to ensure that conservation efforts to create incentives for local communities to conserve endangered species⁹⁶. Protecting our endangered species is therefore an important agenda for both humanity and nature. We must therefore enhance efforts towards protecting our endangered species at the global, national, and regional levels for sustainability.

⁸⁸ Ibid

⁸⁹ Ibid

⁹⁰ Ibid

⁹¹ United Nations Environment Programme., 'Three ways the United Nations Environment Programme works to address illegal trade in wildlife' Op Cit

⁹² Ibid

⁹³ DGB Group., 'The Importance of Saving Endangered Species for a Sustainable Future' Op Cit

⁹⁴ Ibid

⁹⁵ International Institute for Sustainable Development., 'Protecting Endangered Species' Op Cit

⁹⁶ Ibid

References

African Convention on the Conservation of Nature and Natural Resources., Available at https://au.int/sites/default/files/treaties/41550-treaty-Charter_ConservationNature_NaturalResources.pdf

Convention on the Conservation of Migratory Species of Wild Animals., Available at https://www.cms.int/sites/default/files/instrument/CMS-text.en_.PDF

Cross. D., 'Rewilding Endangered Species can Help us Mitigate Climate Change' Available at <https://www.sustainability-times.com/environmental-protection/rewilding-endangered-species-can-help-us-mitigate-climate-change/>

DGB Group., 'The Importance of Saving Endangered Species for a Sustainable Future' Available at <https://www.green.earth/endangered-species>

DGB Group., 'Why Should Endangered Species be Protected?' Available at <https://www.green.earth/blog/why-should-endangered-species-be-protected#:~:text=Protecting%20endangered%20species%20is%20crucial,valuable%20resources%20for%20human%20populations>

Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' International Sustainable Development Law., Vol 1

Giovannoni. E., & Fabietti. G., 'What Is Sustainability? A Review of the Concept and Its Applications.' In: Busco, C., Frigo, M., Riccaboni, A., Quattrone, P. (eds) Integrated Reporting. Springer, Cham. Available at https://doi.org/10.1007/978-3-319-02168-3_2

International Fund for Animal Welfare., '20 of the Most Endangered Animals and Wildlife in Africa' Available at <https://www.ifaw.org/international/journal/20-most-endangered-animals-wildlife-africa>

International Fund for Animal Welfare., 'What is CITES?' Available at <https://www.ifaw.org/international/journal/what-cites>

International Fund for Animal Welfare., 'Why Should we Protect Endangered Animals?' Available at <https://www.ifaw.org/international/journal/why-should-we-protect-endangered-animals>

International Institute for Sustainable Development., 'Protecting Endangered Species' Available at https://www.iisd.org/system/files/2022-02/still-one-earth-endangered-species_0.pdf

International Union for Conservation of Nature., 'The IUCN Red List of threatened Species' Available at <https://www.iucnredlist.org/>

International Union for Conservation of Nature., 'The IUCN Red List of Threatened Species' Available at <https://www.iucnredlist.org/>

National Wildlife Federation., 'Endangered Species' Available at <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Understanding-Conservation/Endangered-Species>

Protecting the Endangered Species from Extinction., Available at <https://www.linkedin.com/pulse/protecting-endangered-species-from-extinction-anumeenacare/>

Protecting the Endangered Species from Extinction., Available at <https://www.linkedin.com/pulse/protecting-endangered-species-from-extinction-anumeenacare/>

United Nations Environment Programme., 'Fourteenth Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP 14)' Available at <https://www.unep.org/events/conference/fourteenth-meeting-conference-parties-convention-conservation-migratory-species>

United Nations Environment Programme., 'The Triple Planetary Crisis: Forging a New Relationship Between People and the Earth' Available at <https://www.unep.org/news-and-stories/speech/tripleplanetary-crisis-forging-new-relationship-between-people-and-earth>

United Nations Environment Programme., 'Three ways the United Nations Environment Programme works to address illegal trade in wildlife' Available at [https://www.unep.org/news-and-stories/story/three-ways-united-nations-environment-programme-works-address-illegal-trade#:~:text=The%20United%20Nations%20Environment%20Programme%20\(UNEP\)%20hosts%20the%20Convention%20on,of%20plants%20to%20prevent%20overexploit](https://www.unep.org/news-and-stories/story/three-ways-united-nations-environment-programme-works-address-illegal-trade#:~:text=The%20United%20Nations%20Environment%20Programme%20(UNEP)%20hosts%20the%20Convention%20on,of%20plants%20to%20prevent%20overexploit)

ion

United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

United States Environmental Protection Agency., 'What are Endangered and Threatened Species?' Available at <https://www.epa.gov/endangered-species/learn-more-about-threatened-and-endangered-species>

United States Environmental Protection Agency., 'What is Sustainability?' Available at <https://www.epa.gov/sustainability/learn-about-sustainability>

Wildlife Conservation and Management Act of Kenya., No. 47 of 2013., Government Printer, Nairobi

World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

Changing The Narrative on the Right to a Clean and Healthy Environment: Analysing Ecocentrism as a Possible Method of Environmental Governance in Kenya

By: Fleria Katherine Atieno & Felix Otieno Odhiambo***

Abstract

Man's intricate relationship with nature bears a strong influence upon the approach taken in terms of environmental conservation and governance. This is particularly evident in the Kenyan legal framework, which this article argues, is largely anthropocentric. Anthropocentrism is a type of environmental conservation and governance approach which perceives nature as an object of exploitation rather than a subject to be valued and protected. This paper, however, offers a contrary view that anthropocentrism does not offer the best alternative to environmental conservation and management. Instead, it calls for a paradigmatic shift that vouches for the alternative view of ecocentrism. Ecocentrism offers the view that the environment is supposed to be conserved for its own sake and not just for the value it has to humanity. This paper argues that even though the Constitution of Kenya 2010 provides for the right to clean and healthy environment, the recognition of this right does not, however, acknowledge the intrinsic value of the environment and, as such, the provision does not fully protect non-human species for their ecological and intrinsic value. This paper, therefore, suggests the need for recognition of environmental rights and the embracing of ecocentrism as an alternative to environmental governance to ensure that non-human entities also get to be fully protected.

1.1 Introduction

The environment and nature are considered important because of the value that they have for humanity.¹ This perception has shaped how the environment is

* Bachelor of Laws (LL.B) (forthcoming December 2024) (Kenyatta University). Fleria has a passion in Environmental and Climate Change Laws. This article is an adapted extract from Ms. Atieno's LL.B. Dissertation work which has since been successfully submitted for examination for the award of the Bachelor of Laws degree of Kenyatta University. She can be reached through P.O. Box 517 Nairobi, mobile number +254758638387 and email address katherinefleria@gmail.com

** PhD in Law (UDSM), LL.M (UoN), PGD in Law (KSL), LL.B (UoN) and B.Ed (Kenyatta University); Advocate of the High Court of Kenya presently practicing at Japheth Kenvine Felix

managed and protected down to the laws that govern it. It is, however, noteworthy that the environment has largely been protected only to the extent that it serves the interests of human beings.² This widely used approach is known as anthropocentrism.³ The alternative to this approach of environmental management is ecocentrism. Ecocentrism refers to the protection of the environment for its own sake and not just because of the value that it has to humanity.⁴

This article examines the concept of ecocentrism as an alternative to environmental governance with particular emphasis on the right to a clean and healthy environment as is guaranteed by the Constitution of Kenya 2010. It makes the case that Kenya's existing approach to both environmental rights and governance is insufficient insofar as it is anthropocentric in nature. It goes on to argue that environmental protection is necessary in order to uphold people's right to have a healthy and clean environment. This article concludes by stating that adopting ecocentrism offers a more holistic approach to environmental governance that better serves the interest of both human beings and the environment.

& Smith Advocates LLP, Nairobi; Lecturer of Law at the Kenyatta University's School of Law. He can be reached through P.O. Box 43130-00100, Nairobi; mobile number +254721914859 and email address felixkinmath@gmail.com

¹ Sidi Supaki, 'Reconceptualisation of Environmental Rights in Kenya: Towards Integration of Ecocentrism and Anthropocentrism in Environmental Conservation', (2022) Kabarak University

² Kariuki Muigua, Entrenching Ecocentric Approach to Environmental Management in Kenya, Volume 4, (2022), < <https://www.uonbi.ac.ke/news/entrenching-ecocentric-approach-environmental-management-kenya#>> accessed on 7th August 2024

³ Rosemary Mwanza, 'The Relationship between the principle of Sustainable Development and the human right to a clean and healthy in Kenya's Legal Context: An Appraisal' (2020) *Environmental Law Review* 22 <<https://journals.sagepub.com/doi/full/10.1177/1461452920952584>> accessed on 7th August 2024

⁴ Ibid

In order to achieve the above-stated purpose, this article would be organised into six interrelated sections. This first section offers an introduction to the article. The second section explores the idea of environmental rights, more so, within the Kenyan legal context. The third section examines the idea of environmental governance and the theories attendant thereto. The fourth section then explores the legal framework that underpins environmental rights in Kenya. The fifth section of the article then puts a case for the granting of rights to nature. The sixth section then offers concluding remarks with the final section then making recommendations.

1.2 Environmental Rights in Kenya

Environmental rights can be either explicit or implicit.⁵ Environmental rights are considered to be explicit if they are clearly defined and enforceable through law i.e. constitutional provisions or statutes they are implicit if they are not directly stated in laws but are inferred from other existing rights .⁶ An example of an explicit right guaranteed by the Kenyan Constitution is the right to an environment that is healthy and clean.⁷ Implicit rights on the other hand include the right to live and socio-economic rights like the right to healthcare, the right to clean and safe water, and the right to acceptable standards of sanitation.⁸

To begin with, it is important to note that environmental rights are not entirely novel in Kenya given that they were recognized under The Environmental Management and Coordination Act 1999. However, the Constitution of Kenya 2010 brought a fundamentally big departure in regards to such rights given that

⁵ Ibid

⁶ Kariuki Muigua, 'Securing Our Destiny through Effective Management of the Environment' (2020) 4(3) *Journal of Conflict Management and Sustainable Development* 1.

⁷ Timonah Chore, 'Reconceptualising the Right to a Clean and Healthy Environment in Kenya: The Need to move from an Anthropocentric View to a Bicentric View' (2019) 4(1) *Strathmore Law Review*, <<https://journal.strathmore.edu/index.php/lawreview/article/view/110/98>> (accessed on 7th August 2024)

⁸ Ibid

it elevated their status from being mere statutory rights to constitutional rights which are protectable under the bill of rights.⁹ This approach is far removed from the situation obtaining under the Constitution of Kenya (repealed) which did not incorporate environmental rights under its chapter 5 which protected the bill of rights. Owing to the “anomaly, the consequence was that enforcement of environmental rights posed a great challenge to litigants.¹⁰ This deficiency therefore informed Kenya’s progressive improvement in environmental protection and management. As a result, it informed the radical constitutional shift in the protection of such rights which then led to the crystallisation of such rights as constitutional rights protectable under the supreme law’s rubric of bill of rights under the Constitution of Kenya 2010.

The Constitution of Kenya 2010 acknowledges that the environment is part of the country’s cultural legacy that needs to be preserved for the benefit of both the current and coming generations.¹¹ Consequently, it is discernible that environmental conservation is essential to the basis of the Kenyan state’s development. The *Adrian Kamotho Njenga v The Council of Governors and 3 others*(2017) case went a long way towards defining the extent of this right.¹² One of the issues raised in this case was what it means to have a clean environment in relation to the use of public roads. It was stated that a healthy and clean environment means an environment free of filth or anything detrimental that could affect the users' physical or mental health. The court then went ahead to hold that the respondents had a duty to implement the right to a clean environment on Kenyan roads. Additionally, the court went on to hold that a healthy environment also encompasses road aesthetics and physical facilities.¹³

⁹ Joel Kimutai Bosek, ‘Implementing Environmental Rights in Kenya’s New Constitutional Order: Prospects and Potential Challenges’ (2014) 9(2) *AJHRL* <https://www.saflii.org/za/journals/AHRLJ/2014/25.html> accessed 14th November 2023

¹⁰ Ibid

¹¹ Article 69 of the Constitution of Kenya

¹² *Adrian Kamotho Njenga v The Council of Governors and 3 others* (2017) eKLR

¹³ Ibid, at paragraph 23 of the Judgement

Further, in the case of *Cortec Mining v Cabinet Secretary Ministry of Mining Kenya* (2015), the court held that any genuine and true environmental degradation and pollution, along with evident and real negative consequences on people's lives and their income, flora, and fauna, is a surefire prescription for a catastrophic time bomb that will blow quickly.¹⁴ In this regard, the court stated that the right forbids us from having the luxury of delaying taking action.¹⁵ From the two cases highlighted above it is evident that there is a common thread that is seen, i.e. the fact that the protection of environmental rights in Kenya is by virtue of the impact that they have on the human beings who live within the relevant environment.¹⁶ The problem with this kind of viewpoint is that it is limiting, hence, posing the challenge that the environment can only be appreciated within the context that human beings are at the centre.¹⁷ The limitation with this viewpoint is that it overlooks the fact that the ecosystem is interdependent and that all organisms depend upon each other to survive.¹⁸ The corollary to this predominant view is that we cannot protect one environmental entity's right to a clean environment without considering the same right for all other entities of the environment.¹⁹

¹⁴ Paragraph 16 of the Judgment in *Cortec Mining v The CS Ministry of Mining and 9 others* (2015) eKLR

¹⁵ *Cortec Mining v The CS Ministry of Mining and 9 others* (2015) eKLR

¹⁶ BBC, 'How are organisms in an environment interdependent?' *OCR 21st Century* <<https://www.bbc.co.uk/bitesize/guides/zctwgdm/revision/5>> (accessed on 13th December 2023)

¹⁷ Sidi Supaki, *Reconceptualization of Environmental Rights in Kenya: Towards an Integration of Ecocentrism and Anthropocentrism in Environmental Conservation* (2022) Research Gate.

¹⁸ International Joint Commission, *Rights of Nature*, (IJC Comment files, 2019) <<https://www.ijc.org/system/files/commentfiles/2019-10-Nicolette%20Slagle/FAQ.pdf>> accessed on 15th August 2024

¹⁹ Clarice Wambua, 'When can a river sue you? Implementing a rights of nature approach in environmental management' (2022) CDH Incorporated, <<https://www.cliffedekkerhofmeyr.com/news/publications/2022/Practice/Environmental/environmental-law-alert-15-june-2022-when-can-a-river-sue-you-implementing-a-rights-of-nature-approach-in-environmental-management-.html#:~:text=Recognizing%20the%20rights%20of%20nature,require%20legal%20changes%20in%20Kenya.>> accessed on 15th August 2024

1.3 Ecocentrism as a Method of Environmental Governance in Kenya

1.3.1 Environmental Governance in Kenya

The Constitution of Kenya 2010 provides that each person has a right to an environment that is safe and healthy.²⁰ Consequently, it places humanity at the heart of environmental protection and with this view, we dare submit, is part of the reason why the current method of environmental governance is not sustainable in the long run. The premise for this article is that the Kenyan legal system provides for environmental rights that caters for the interests of human beings but fails to protect other components of the ecosystem such as animals, plants, water bodies among others and, for this reason, it is insufficient.

This article argues that the danger of placing human beings at the center of environmental rights is that it prevents a wholesome approach to environmental management and conservation because it only focuses on only one of the species out of the possible millions of the other species that do also require the same elements to survive.²¹ The wholesome approach to environmental management and conservation is necessary in view of the fact that nature and human beings are intertwined and interdependent.²² This is to mean that the humans' environmental rights cannot be realized unless and until the environment itself is protected. An instance of this is the right to an environment that is clean and healthy with regard to, for instance, the heavily polluted Nairobi River. This article submits that if the Nairobi River itself is not shielded from pollution, then the citizens' entitlement to a clean and healthy environment cannot be fulfilled. Having laid down the foregoing background, this article now proceeds to examine the theories of environmental governance in Kenya.

²⁰ Article 42 of the Constitution of Kenya 2010

²¹ Ibid

²² Observatoire Internationale des droits de la nature, *The Rights of Nature an ancient and Emerging Concept in Africa* <<https://observatoirenature.org/observatorio/alliance-fleuve-st-laurent/>> accessed on 15th August 2024

1.3.2.1 Natural Law Theory

Natural law theory is based on the idea that there are intrinsically valuable goods that define a flourishing human life.²³ Prioritizing the good and avoiding the bad is one of the main tenets of Natural Law Theory and they are derived from nature and not human-made laws or societal norms.²⁴ This suggests that environmental exploitation would be improper since it is immoral. However, this theory also argues that human beings have a higher purpose and they are therefore allowed to use the environment for their benefit so long as this use is not exploitative.²⁵ It also argues that the environment is God's creation and for that reason there is need to protect it and doing this is a way of worshipping God.²⁶ It also states that some acts of exploitation can be justified, for example, the case of cutting down a tree to provide housing for humans. In this case, the consequences of the two actions are weighed up and they seem fine insofar as animals should lose their homes for humans.²⁷ This theory is, however, criticized for lacking universality.²⁸ This is because it bases itself on the belief in God and this may not apply to societies, and or people, that do not believe in God.²⁹

Regarding environmental rights, another interpretation of natural law theory is that it supports the idea that nature has inherent rights.³⁰ This viewpoint is based

²³ Colleen McCluskey, *Natural Law Theory and Climate Change*, Routledge, 1st edition (2020)

²⁴ Ibid

²⁵ Bebhinn Donnley and Patrick Bishop, 'Natural Law and Ecocentrism', (2007) 19 *Journal of Environmental Law*

²⁶ Lucas Tomaszewski, *Natural Law and the Environment*, < <https://prezi.com/wug-l8j1bkfu/natural-law-and-the-environment/#:~:text=One%20of%20the%20central%20principles,wrong%20as%20it%20is%20evil.>> accessed on 13th December 2023

²⁷ Ibid

²⁸ Robert George, 'Recent Criticism of Natural Law Theory', (2012) *Oxford Academic* <<https://doi.org/10.1093/acprof:oso/9780198267713.003.0003>>, (accessed on 15th August 2024)

²⁹ Ibid

³⁰ Ibid

on the idea that the environment has an inherent right to live and thrive, just like people do.³¹ Legal philosophers and environmentalists who support giving nature legal rights in order to provide more robust and enforceable environmental protections have come to support this approach.³²

1.3.2.2 Ecocentrism

According to ecocentrism, humans only exist because of the kindness and sacrifice made by the environment since they are its children.³³ This theory posits that there is intrinsic value in all living organisms and this flows from the understanding of how the ecological and evolutionary systems work.³⁴ This theory further proposes that in order to deal with the ecological crisis bedeviling the globe, there is need to have a major shift in the way we relate with nature.³⁵ Like the case of Natural Law Theory, this theory also faces its own fair share of criticism. In this regard, one of the criticisms it faces is that it ignores the domineering role that humans have on the environment. Consequently, it becomes difficult to implement considering that it fails to put into content the role that human beings have with regards to the environment.³⁶ the second

³¹ Elf, 'The Rights of Nature: A New Era of Environmental Protection' (2018) *Environmental Law Foundation* <[The Rights of Nature: A New Era of Environmental Protection - Environmental Law Foundation \(elflaw.org\)](https://www.elflaw.org/)> accessed on 15th August 2024

³² Jeremie Gilbert, Ilkhom Soliev, Anne Robertson, Saskia Vermeylen, Neil W. Williams, Robert C. Grabowski, 'Understanding the Rights of Nature: Working Together Across and Beyond Disciplines' (2023) 51, *Human Ecology* 363

³³ Kariuki Muigua, 'Securing Our Destiny through Effective Management of the Environment' (2020) 4(3) *Journal of Conflict Management and Sustainable Development* 1

³⁴ The Knowledge Project, 'Environmental Ethics' <<https://www.nature.com/scitable/knowledge/environmental-ethics96467512/#:~:text=Environmental%20ethics%20is%20a%20branch,sustain%20bio%20diversity%20and%20ecological%20systems>> accessed on 17th November 2023

³⁵ Ibid

³⁶ Helen Kopnina, 'Anthropocentrism :more than just a misunderstood problem', <[Anthropocentrism: More than Just a Misunderstood Problem | Journal of Agricultural and Environmental Ethics \(springer.com\)](https://www.springer.com/)> (accessed on 2nd September 2023)

criticism of this theory is that it is anti-humanist.³⁷ In this regard, the theory risks jeopardizing human needs for a supposedly poorly defined greater good.³⁸ However, the article argues that this criticism fails to take cognisance of the fact that protection of the ecosystem does not necessarily mean a consequent disregard for humanity. This is because an ecocentric approach ensures that human rights to a healthy and clean environment are protected by safeguarding the interests of all the other components of the environment as well.³⁹ This paper argues for an ecocentric approach because the same ensures a holistic and wholesome approach towards environmental management and conservation.

1.3.2.3 Anthropocentrism

The anthropocentric school of thought holds the view that man is superior to the environment and he may use it however he likes.⁴⁰ The corollary to the foregoing is that everything that exists in nature does so only to the extent of serving man.⁴¹ Anthropocentrism is human-centered in its approach to environmental conservation and management and completely disregards the intrinsic values of the environment.⁴² It is a primarily Western approach to the environmental

³⁷ Vito Du Lucia, 'Beyond Anthropocentrism and Ecocentrism: A Biopolitical reading of Environmental Law' (2017) 8 (2) *Journal of Human Rights and the Environment* 181

³⁸ Cryer Paul, 'Why Ecocentrism is the Key Pathway to Sustainability' (4th July, 2017) *Mahb* < [Why ecocentrism is the key pathway to sustainability - MAHB \(stanford.edu\)](#)>, (accessed on 15th August 2024)

³⁹ Irene Ganner, 'What is Ecocentrism in Philosophy and Environmental Ethics?' *Environmental Ethics*, 6th August 2024) <[What Is Ecocentrism in Philosophy and Environmental Ethics? - Environmental Ethics \(iseethics.org\)](#)> (accessed on 15th August 2024)

⁴⁰ Alexander Gillespie, *International Environmental Law, Policy, and Ethics* (2nd edition, OUP 2014)

⁴¹ Rebecca Coffey, 'What is Anthropocentrism?' (3rd August 2022) *TreeHugger* <[Anthropocentrism: Definition & Environmental Impact \(treehugger.com\)](#)> (accessed on 15th August 2024)

⁴² Timonah Chore, 'Reconceptualising the Right to a Clean and Healthy Environment in Kenya: The Need to Move from an Anthropocentric View to a Bicentric View' (June 2019) *Strathmore Law Review* 71.

conservation.⁴³ Reference to this theory is founded in the Judeo-Christian theology which argues that man is God's representative here on earth and, therefore, is supposed to subdue nature in order to fulfill his needs.⁴⁴ It draws the distinction between intrinsic value and instrumental value.⁴⁵ On the one hand, instrumental value is the value of one thing as a tool to the realisation of something else⁴⁶. On the other hand, intrinsic value on the other hand means the value of something as an end in itself.⁴⁷ In this regard, therefore, the anthropocentric approach assigns intrinsic value to human beings while nature is assigned instrumental value.⁴⁸ Aristotle in his book *Politics* exhibits this argument by opining that nature has made all things primarily for the benefit of man.⁴⁹ Similarly, Immanuel Kant, in his book *Duties to Animals and Spirits* argues that cruelty to man may encourage one to be desensitized to cruelty to human beings.⁵⁰

This theory has, however, been criticized for centering human beings to the subject of environmental conservation while neglecting the environment and

⁴³ Tarannum Vashisht, 'Anthropocentric v Ecocentric Approach to the Environment' (2020) *IPleaders*, <<https://blog.ipleaders.in/anthropocentric-v-ecocentric-approach-to-the-environment/>> accessed on 23rd August 2024)

⁴⁴ Ibid

⁴⁵ Ibid

⁴⁶ Ibid

⁴⁷ Emrys Westacott, 'Intrinsic v Instrumental Value' (24th May 2019) *ThoughtCo* <<https://www.thoughtco.com/intrinsic-and-instrumental-value-2670651>>, (accessed on 7th August 2024)

⁴⁸ Ibid

⁴⁹ Stanford Encyclopedia of Philosophy, (2022) *Aristotle Political Theory*, <<https://plato.stanford.edu/entries/aristotle-politics/>>, (accessed on 7th August 2024)

⁵⁰ Brennan Andrew and Norva Y.S, Lo, *Environmental Ethics*, (Stanford Encyclopedia of Philosophy 2022) <<https://plato.stanford.edu/entries/ethics-environmental/>> (accessed on 17th November 2023)

nature.⁵¹ This school of thought has been used to argue for economic growth.⁵² Further, it has also been criticized for failing to acknowledge that the increase in population and other human activities is part of the reason for the decline in natural resources.⁵³

1.3.2.4 Bicentrism

This approach borrows from both ecocentrism and anthropocentrism. It argues for the need to protect all living organisms including plants and non-sentient beings, this stems from the belief that there is intrinsic value in both.⁵⁴ It argues that the interest for all beings is to survive and there is no being that is superior over the other.⁵⁵ Sustainable development strategies that satisfy human needs without compromising the health and integrity of ecosystems are supported by bicentrism. It advances the notion that environmental health and human well-being are related and ought to be addressed jointly.⁵⁶ Bicentrism promotes behaviors and policies that take into account the effects on both people and the environment from an ethical point of view.⁵⁷ When making decisions, it aims to strike a balance between social, economic, and environmental objectives.⁵⁸ However, a number of criticisms arise with regard to bicentrism, for instance it is

⁵¹ Helen Kopnina, Haydn Washington, Bron Taylor and John J Piccolo, 'Anthropocentrism: More than Just a Misunderstood Problem' (2018) 31, *Journal of Agricultural and Environmental Ethics* 109

⁵² Ibid

⁵³ Layna Droz, 'Anthropocentrism as the Scapegoat of the Environmental Crisis: A Review, Ethics in Science and Environmental Politics (2022) 22 *Journal of Ethics in Science and Environmental Politics*

⁵⁴ Muir A, 'An interpretation of the South African Constitutional "Environmental Right" (Section 24 of the Constitution of the Republic of South Africa, 1996) and an Assessment of its Relationship to Sustainable Development' (LM Thesis, University of Kwa-Zulu Natal, Durban, 75).

⁵⁵ Mouchang Yu and Yi Lei, 'Biocentric Ethical Theories' II *Journal of Environment and Development*

⁵⁶ Muir A, *supra*, p. 77.

⁵⁷ Ibid

⁵⁸ Ibid

criticized for being ambiguous when it comes to striking a balance between environmental concerns and human needs.⁵⁹ Critics contend that it can be difficult to decide whether to put human needs ahead of environmental conservation and vice versa in the absence of defined rules.⁶⁰ In addition to this, it is considered that it may be challenging to put bicentric ideals into practice, finding a balance between development and conservation frequently entails difficult trade-offs, and bicentrism might not offer workable answers to these problems.⁶¹ Lastly some environmentalists argue that bicentrism could result in compromises that are insufficient to safeguard the environment. There is a chance that environmental issues will be minimized or neglected in the process of attempting to strike a balance between human and environmental interests.⁶²

1.3.2.5 Cornucopian Approach

The proponents for this approach simply deny that there is environmental degradation it is an optimistic perspective to human progress and resource availability.⁶³ They disagree with the notion that the earth's limited resources ought to be preserved.⁶⁴ Cornucopians proffer the argument that there are enough resources on earth for everyone and that the said resources can be used by humans without restriction.⁶⁵ This theory denies the realities that can be clearly seen, for instance, the effects of global warming that have resulted in the climate crisis that disproportionately affects the countries in the global south,

⁵⁹ Muir A, *supra*, p. 76.

⁶⁰ Alexander Whittaker, 'Biocentrism debunked: Understanding What the Theory is about', < [Biocentrism Debunked: Understanding What the Theory is About \(explosion.com\)](https://www.explosion.com/biocentrism-debunked-understanding-what-the-theory-is-about) > accessed on 15th August 2024

⁶¹ Ibid

⁶² Ibid

⁶³ Jo Arney, 'Saving Earth' *Encyclopaedia Earth* <<https://www.britannica.com/explore/savingearth/cornucopian>> (accessed on 23rd August 2024)

⁶⁴ Ibid

⁶⁵ Ibid

including Kenya.⁶⁶

1.4 Why the Case for Ecocentrism?

Like has been alluded to under the theory of ecocentrism, this article is premised on the argument that states should align their environmental conservation and management approaches to the principles of ecocentrism. The reason for this argument is that the most prevalent approach adopted by the existing laws, of most countries including Kenya, has been anthropocentrism. This is because of the fact that the laws have placed humankind at the core of environmental protection.⁶⁷

In fact, this view is further supported by the reality that even the concept of sustainable development, as adopted by the Brundtland Commission Report, is defined within anthropocentric lenses. The Report defined sustainable development as development that meets the needs of the present generation without compromising the needs of future generations.⁶⁸ Considering how Kenya still continues to grapple with a number of environmental rights violations, it is submitted that this is a strong pointer that the anthropocentric approach has not been very successful towards entrenching environmental rights. Consequently, this article argues that ecocentrism is a better alternative towards ensuring that environmental rights are protected adequately.

The article's position is, for instance, supported strongly by Thomas Berry

⁶⁶ Saroj K. Mishra, Pankaj Upadhyaya, John T. Fasullo, Narayan Prasad Keshri, Popat Salunke, Arunabha Ghosh, Asiya B. Sainudeen & In-Sik Kang, 'A Need for Actionable Climate Projections Across the Global South' (2023) 13 *Journal of Nature Climate Change* 883

⁶⁷ Collins Odote, 'Human-Rights Based Approach to Environmental Protection: Kenyan, South African and Nigerian Constitutional Architecture and Experience' in Michael Addaney, Ademola Oluborode Jegede (eds) *Human Rights and the Environment under African Union Law* (Palgrave Macmillan, 2020)

⁶⁸ Ibid

arguments on nature and nature's rights.⁶⁹ Berry argues that the rights of nature are ecocentric in the sense that nature is entitled to have rights because of its intrinsic value, i.e. nature's rights are inherent and inalienable.⁷⁰ He contends that nature's rights take the form of a claim-duty approach, meaning that humans have an obligation to defend and promote nature's rights and that nature may assert those rights through a representative.⁷¹ He further argues that nature's rights are specific to an entity, hence, for example, the rights of a forest may be different from those of a river.⁷² Lastly, he argues that the rights accruing to nature are not absolute as they can be limited, for instance, where they affect the rights of other species.⁷³ In instances where such rights are to be limited, then he is of the opinion that the rights that are in the best interest of mother nature should be upheld.⁷⁴

Similarly, Christopher Stone also aligns his thoughts with ecocentrism by arguing that trees, as well as other natural resources, should have a legal personality.⁷⁵ He opines that natural resources should be able to institute a claim in their own names. In this regard, he proffers the argument that a river should, for example, be able to place liability on the polluter from changing its state from oxygenated to heavily polluted.⁷⁶ Similarly, he further argues that a river should also be able to get a judgement in its favour and in situations where monetary sums are paid, they should be used towards the restoration of the river instead

⁶⁹ Thomas Berry, *Principles on Earth Jurisprudence*, extracted from Thomas Berry, *Evening Thoughts: Reflecting on Earth as Sacred Community* (originally published by San Francisco: Sierra Club Books & University of California, 2006)

⁷⁰ Ibid

⁷¹ Ibid.

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Christopher Stone, *Should Trees Have Standing?: Law, Morality and Environment* ,(Oxford University Press, 2010)

⁷⁶ Ibid

of compensating the residents who are affected by pollution.⁷⁷ This would therefore mean that natural resources have rights which are similar to those of human beings. However, the rights ascribable to natural resources would mainly relate to the right to institute and respond to claims, property rights and the right to enter into contractual agreements.⁷⁸

1.5 Legal Framework Governing Environmental Rights in Kenya

Over time, the Kenyan law on environmental rights has truly made a lot of progress considering that there was a time when instituting a claim on the violation of environmental rights was such an uphill task. There is no better instance that best demonstrates this fact than the circumstances relating to the *Wangari Maathai v Kenya Times Media Limited* (1989) eKLR where the plaintiff instituted a claim seeking a temporary injunction to prevent the Defendant from constructing a complex at a recreational park. Despite the merits of the case, the suit was dismissed on a technicality on the ground that the plaintiff lacked *locus standi*. It was submitted by the defendant, an argument that was upheld by court, that it was only the Attorney-General who could institute such a claim. This is just one of the many instances where a claim to protect the environment failed.

1.5.1 International Legal Framework

1.5.1.1 Hard Law

Under international law, hard law consists of legally binding instruments such as treaties and conventions in which countries agree to sign and ratify and are as such obligated to comply with their terms.⁷⁹

⁷⁷ Ibid

⁷⁸ Ibid

⁷⁹ Law School Buddy, 'Hard Law v Soft Law in International Law', (16th March 2021) *Law School Buddy*, <[Hard Law vs. Soft Law in International Law - Law School Buddy](#)> accessed on 2nd September 2023

1.5.1.1.1 The United Nations Convention on Biological Diversity 1994

The Convention plays a crucial role in the discussions on sustainable growth, despite not directly creating a provision for the rights of nature, it invites member states to agree on a global policy for nature where it seeks to recognize the rights of nature.⁸⁰ Kenya as of June 1992 became a signatory to this convention and thus is obligated to promote and encourage the conservation of biological diversity.⁸¹ As such, establishment of mechanisms such as the Environmental Impact Assessment test that is provided for in the Environmental Management and Coordination Act is a reflection of the country's commitment to the CBD.⁸²

1.5.1.2 Soft Law

Soft law under international law includes declarations, guidelines, resolutions and codes of conduct that are not legally binding and whose compliance is often voluntary.⁸³

1.5.1.2.1 The Earth Charter 2000

This declaration is one of the few frameworks that acknowledges the inherent worth of the environment, it lays forth the primary values on which to build a peaceful just and sustainable world in the present age. It purposes to develop in the global community a sense of purpose and shared responsibility and interdependence for the good of mankind and for generations to come. It is informed by the need to protect nature as it is and also the need to preserve environmental resources for the benefit of humanity.⁸⁴

⁸⁰ Ibid.

⁸¹ Kariuki Muigua, 'An Overview of the Convention on Biological Diversity', (The Lawyer Africa, 26th March 2022), < [An Overview of the Convention on Biological Diversity - The Lawyer Africa](#) > accessed on 2nd September 2024

⁸² Ibid

⁸³ Law School Buddy, 'Hard Law v Soft Law in International Law', (16th March 2021) *Law School Buddy*, 1 < [Hard Law vs. Soft Law in International Law - Law School Buddy](#) > (accessed on 2nd September 2023)

⁸⁴ 'Earth Charter', Charter for compassion, < <https://earthcharter.org/> > (accessed on 7th April 2024)

1.5.1.2.2 The Declaration of the United Nations Conference on the Human Environment of 1972

This declaration was a commitment to both current and upcoming generations and it also set the tone for the Rio declaration by raising discussions on the connections between the industrialization of states and the negative impacts it had on the environment.⁸⁵ It further acknowledged that in order for people to be able to enjoy their human rights, there was necessity to ensure that the environment in which they lived in was healthy as well.⁸⁶

1.5.1.2.3 The Rio Declaration on Environment and Development of 1992

This declaration made an attempt to balance the need for economic growth and environmental conservation as such popularizing the term sustainable development.⁸⁷ The Brundtland Commission whose recommendations served as the foundation of the Rio Declaration established among other things, the precautionary principle and the principle of civic protection of basic ecological values.⁸⁸ It also recognizes that involving everyone impacted by an issue has the greatest chance of solving environmental problems.⁸⁹ Encouraging public participation, redress when necessary, and ensuring citizens have access to information about how their natural resources are being used are all emphasized by it.⁹⁰

⁸⁵ Principle 1 of The Stockholm Declaration on the Human Environment 1972

⁸⁶ Taskforce on Nature Markets, Rights of Nature Developments and Implications of Governance for Nature Markets, (Nature Finance, 2022)

⁸⁷ Report of the United Nations Conference on Environment and Development, Rio Declaration on Environment and Development, < [A/CONF.151/26/Vol.I: Rio Declaration on Environment and Development](#)> (accessed on 22nd October 2024)

⁸⁸ Principle 4 of The Rio Declaration of 1992

⁸⁹ Principle 10 of The Rio Declaration of 1992

⁹⁰ Ibid

1.5.2 Regional Legal Framework

1.5.2.1 Hard Law

1.5.2.1.1 African Convention on the Conservation of Nature and Natural Resources 1968

This regional framework purposes to conserve and ensure environmental resources are used sustainably and to foster a framework for environmental protection.⁹¹ The framework also acknowledges that everyone has a right to a good environment that is conducive to their surroundings.⁹² Kenya became a signatory to this convention as from July 2003.⁹³ Implementation of this convention is seen through legislative provisions such as the Wildlife Conservation and Management Act that provide a legal basis for protecting biodiversity and managing natural resources responsibly.⁹⁴

1.5.2.1.2 The Bamako Convention on Hazardous Waste 1991

This convention focuses on the regulation of hazardous waste, it also prohibits the importation of hazardous waste into the African region.⁹⁵ It acknowledges that controls are necessary to mitigate the risks associated with hazardous waste

⁹¹ African Union, African Convention of Nature and Natural Resources,< [African Convention on the Conservation of Nature and Natural Resources | African Union](#)>,accessed on 22nd October 2024

⁹² Article 3 of the African Convention on the Conservation of Nature and Natural Resources 2003

⁹³ List of Ratification of Kenya Human Rights Treaties ,< [Microsoft Word - JS4 UPR KEN S08 2010 Joint Submission 4 Annex 3.doc \(ohchr.org\)](#)> accessed on 2nd September 2023

⁹⁴ Wambui Odhiambo ,'National Biodiversity Coordination Mechanism Launched to Enhance Biodiversity Conservation in Kenya',(African Wildlife Foundation,9th August 2024),< [National Biodiversity Coordination Mechanism Launched to Enhance Biodiversity Conservation in Kenya | African Wildlife Foundation \(awf.org\)](#)> ,accessed on 2nd September 2024

⁹⁵ Ibid

in order to safeguard both the environment and public health.⁹⁶ Kenya signed this convention in January 1991 and has taken steps to implement some of its provisions including through implementing the Environmental Management and Coordination Act which provides for means of managing hazardous waste and it further establishes the National Environmental Management Authority that provides guidelines for managing hazardous waste.⁹⁷

1.5.2.1.3 African Charter on Human and People's Rights 1986

Kenya became a signatory to the African charter in 1992. According to the Charter, every person has a right to a satisfactory standard of environment that is necessary for the development of the person.⁹⁸ This right was, for instance, successfully invoked in 2001 by the African Commission on Peoples and Human Rights through its decision in Communication 155/96 - The Social and Economic Rights Action Center and the Centre for Economic, and Social Rights. Through this decision, the Federal Government of Nigeria was held responsible for violating this right in regards to its failure to protect the Ogoni people from the effects of pollution arising from drilling of oil in Ogoniland.⁹⁹ The complaint against the acts of pollution was lodged in March 1996 by two non-governmental organisations, namely, the Social and Economic Rights Action Centre (SERAC), based in Nigeria, and the Centre for Economic and Social Rights (CESR) which was based in New York, against the serious acts of pollution arising from the joint drilling venture between the Nigerian National Petroleum Company (NNPC) and the Shell Petroleum Development Company (SDPC). The oil drilling activities had reportedly caused serious environmental degradation and health problems among the local Ogoni People.¹⁰⁰

⁹⁶ Article 2 of the Bamako Convention on Hazardous Waste 1991

⁹⁷ Steiner Achum, *An Introduction to the African Convention on conservation of nature and natural resources*, (IUCN, 2004)

⁹⁸ Article 24 of the African Charter on Human and Peoples Rights 1986

⁹⁹ Centre for Economic and Social Rights v Nigeria, (2002) ACHPR

¹⁰⁰ Fons Coomans, 'The Ogoni Case before the African Commission on Human and Peoples' Rights' (July 2003) 52 (3) *The International and Comparative Law Quarterly* 749.

1.5.3 National Legal Framework

1.5.3.1 Constitution of Kenya 2010

Right from its preamble, the Constitution of Kenya 2010 recognizes the importance of the environment and stresses that it forms part of the country's cultural legacy. It then emphasizes upon the need to protect it for the benefit of both the present and future generations.¹⁰¹ The preamble further places a duty upon all citizens to conserve the environment and to require that they use it in a sustainable manner.

The right to a healthy and clean environment is also a key tenet of environmental rights as guaranteed by the Kenyan legal framework.¹⁰² It places an obligation upon the state to ensure that the environment is utilized in a manner that sustains it, to work towards attaining and sustaining a tree cover of not less than ten percent of Kenya's total land mass, safeguard the intellectual property of indigenous communities including their understanding of biological diversity. The Constitution further requires the state to encourage the participation of the public in matters relating to the environment, and reinforces its responsibility towards the creation of procedures for environmental impact assessment, environmental auditing and environmental monitoring. Article 69 also obligates the state to do away with processes that are harmful to the environment and to require that the environment be used only in a manner that benefits the Kenyan people.

In recognizing that the importance of the right to a clean and healthy environment, the Constitution then empowers anyone who claims that their right has been infringed with the right to institute a claim arguing that their environmental rights are threatened, violated or infringed.¹⁰³ Towards this end, the Constitution establishes the Environment and Land Court and is primarily

¹⁰¹ Preamble to The Constitution of Kenya 2010

¹⁰² Article 42 of The Constitution of Kenya 2010

¹⁰³ Article 22 of The Constitution of Kenya 2010

responsible for adjudication of cases pertaining to land and environmental disputes, including those concerning land conflicts, environmental planning, climate affairs, mineral and environmental resource disputes.¹⁰⁴ This court has both appellate and original jurisdictions, with the power to determine redress for denial or infringement for all rights.¹⁰⁵ This court may make orders which it deems fit by either preventing the act or omission or compelling a public officer to discontinue the act. Furthermore, it has the authority to provide compensation, and in this instance, proof of loss is not required. To settle any disputes pending before it, the court may also, with the parties' permission, use alternative dispute resolution procedures. Despite the Constitution's very elaborate provisions in regards to environmental rights, it is submitted that one of the gaps in the Kenya's constitutional provisions is that, although there are extensive remedies available in cases where someone's environmental rights have been violated, there is no sufficient mechanism in place to return the environment to its pre-damage state.

In accordance with the Constitution Review Commission, a body established to oversee the comprehensive review of Kenya's Constitution, the reason for which the right to a healthy and safe environment was formed was to ensure that environmental rights were protected and that the environment was managed and conserved in an effective manner. However, the disproportionate emphasis on human needs and interest with regard to the environment has prevented the effective realization of this goal.¹⁰⁶ To effectively achieve the right to an environment that is healthy and clean, it is implied from reading section 2 of the Environmental Management and Coordination Act 1999 that environmental

¹⁰⁴ Article 162 as read together with Article 165 of the Constitution

¹⁰⁵ Article 162 of The Constitution of Kenya 2010

¹⁰⁶ Daniel Mutunga Nzeki, 'Demystifying the Right to Clean and Healthy Environment in Kenya and How it can be Enforced' (2021) 6(5) *Journal of CMSD* 196 <<https://journalofcmsd.net/wp-content/uploads/2021/07/Demystifying-The-Right-to-A-Clean-and-Healthy-Environment-in-Kenya-and-how-it-can-be-Enforced.pdf>> (accessed on 21st March 2024)

protection is a necessity.¹⁰⁷

In line with both their Constitutional and statutory mandates, courts have provided interpretations concerning environmental rights. For instance, the case of *Martin Osano Rabera and another v Municipal Council of Nakuru and 2 others* (2018) eKLR is a good example of the need to protect the environment in order to be able to safeguard the people's right to a clean and healthy environment.¹⁰⁸ In this case, respondents were held to have violated the right to a clean and healthy environment in regards to how they operated a dumpsite which was established within the area where the plaintiff lived. The court, in its analysis of Article 42 of the Constitution, found that the dumpsite in question attracted domestic animals like cows, chicken and goats which, when left unattended, consumed waste matter from the dumpsite. The unsuspecting residents would then consume the meats of these animals thereby leading to the spread of diseases like dysentery. In addition, the dumpsite would harbour rodents that also pose dire health risks to the residents.

Similarly, in *Kenya Association of Manufacturers and 2 others v Cabinet Secretary Ministry of Environment and Natural Resources and 3 others* (2018) eKLR, the principal issue for determination by the court was the validity of a move by the Cabinet Secretary of Environment to prohibit the use of plastics, their importation and manufacture in Kenya. In its determination, the court weighed the commercial interests of the plastics vis-à-vis their environmental rights for the over 40 million Kenyans whom the ban sought to protect. In balancing the said interests, the court held that the need to protect the Kenyans' collective right to a clean and healthy environment clearly outweighed the commercial interests of the plastic bag dealers. These two judicial decisions do, in fact, show that achieving the right to a clean and healthy environment depends on environmental preservation.

¹⁰⁷ Section 2 of The Environmental Management and Coordination Act 1999

¹⁰⁸ *Martin Osano Rabera and another v Municipal Council of Nakuru and 2 others* (2018) eKLR

1.5.3.2 The Environmental Management and Coordination Act 1999

This Act, popularly acronymed as EMCA, is the legal instrument that consolidates all matters addressing the environment.¹⁰⁹ In its definition, the environment is made up of the physical components that surround humans, such as land, water, climate, atmosphere, sound, taste, and odour, as well as the biological components of plants and animals and the social components of aesthetics, which encompass both the constructed and natural environments.¹¹⁰ The Act plays a crucial role in the realization of the right to a clean and healthy environment. It establishes the National Environment Management Authority (NEMA) which is responsible for coordinating environmental management activities and enforcing environmental laws.¹¹¹ Furthermore, the Act mandates that any project likely to have a significant impact on the Environment must undergo an Environmental Impact Assessment Test that ensures that environmental impacts of a project are mitigated before the project proceeds.¹¹² The Act also emphasizes the importance of public participation in environmental decision making including during the Environmental Impact Assessment process.¹¹³ In addition to this, the Act provides a framework for enforcement of environmental rights by establishing an environmental tribunal to handle disputes and ensure compliance with environmental obligations.¹¹⁴

1.5.3.3 The Environment and Land Court Act 2011

This legislation operationalises the specialized court, i.e. the Environment and Land Court, whose principal mandate is to resolve disputes pertaining to land and the environment, as established under Articles 162 and 165 of the

¹⁰⁹ Section 1 of the Environmental Management and Coordination Act 1999

¹¹⁰ Section 2 of the Environmental Management and Coordination Act 1999

¹¹¹ Section 7 of the Environmental Management and Coordination Act 1999

¹¹² Section 62 of the Environmental Management and Coordination Act 1999

¹¹³ Ibid

¹¹⁴ Section 125 of the Environmental Management and Coordination Act 1999

Constitution.¹¹⁵ The court adjudicates cases and renders decisions in relation to disputes relating to environmental issues, land use and occupation, and title. The court can settle disputes, guarantee adherence to environmental legislation, and enforce rights related to the environment. It has the authority to impose sanctions, including awarding compensation for environmental harm and orders for environmental repair. The concepts of sustainable development, public participation, and access to justice serve as the foundation for the court's operations.¹¹⁶

One of this court's decisions which stands out with regard to protection of the environment is that of *Isaiah Luyara Odondo and another v National Environmental Authority and 2 others: County Government of Nairobi and 5 others* (2021) eKLR.¹¹⁷ The petitioners in this case asked the court to declare that by failing to curb pollution along the Athi and Nairobi Rivers, the County Governments of Nairobi, Kiambu, Machakos, Makueni, Kilifi, and Tana River had breached the Petitioners' rights to a clean and healthy environment. The court agreed with the petitioners and held that by continuing with the actions that contaminated the waterways, the respondents had failed to ensure the petitioners' rights to a clean and healthy environment is upheld.

The court made reference to the approach taken up by New Zealand where The River Whanganui was granted legal personhood, through an act of parliament in 2017.¹¹⁸ The court made further reference to the Amazon River where the Colombian Supreme Court recognized the river to have rights and hence deserving of protection. In the case, 25 young people made a claim against the

¹¹⁵ Section 2 of the Environment and Land Court Act 2011

¹¹⁶ Ibid

¹¹⁷ *Isaiah Luyara Odondo and another v National Environmental Management Authority and 2 others: County Government of Nairobi and 5 others* (Interested Parties) (2021) eKLR

¹¹⁸ Elin Blakemore, 'This New Zealand River just got the legal rights of a person', (Smart News, 2017), <[Innovative bill protects Whanganui River with legal personhood - New Zealand Parliament \(www.parliament.nz\)](http://www.parliament.nz)> accessed on 15th August 2024

government stating their failure to protect the Amazon forest from deforestation, violated the rights to life, health and the environment, as such it was declared that the Amazon was an entity that enjoyed legal rights.¹¹⁹

The court acknowledged that granting rights to nature was one of the creative approaches taken up around the world to deal with the issue of pollution. It is however to be pointed out that although the court did not expressly recognise the rights possessed by both the Nairobi River and River Athi, nonetheless, the case points out an increased awareness in the granting of rights to nature as one of the novel approaches that could be adopted to promote environmental protection in Kenya.

1.5.3.4 The Land Act 2012

The Act, although is primarily concerned with land ownership, tenure and administration, also incorporates and promotes sustainable and productive management of land resources¹²⁰. The relevance of this piece of legislation to the discussion at hand ensues from the fact that most environmental resources whose preservation is necessary for purposes of ensuring a clean and healthy environment, are land-based.¹²¹ As a result, access to and management of land are *sine quo non* towards the upholding of people's rights to a clean and healthy environment.^{122*} Besides, the Act also has certain direct provisions with regard to environmental protection. One such provision, for instance, is that its section 4 provides that ecologically sensitive areas within public lands ought to be identified and protected from harmful activities.

¹¹⁹ Eco Jurisprudence Monitor, 'Colombia Court case on the rights of Colombian Amazon' (2018) *Eco Jurisprudence Monitor* <[Colombia court case on the rights of the Colombian Amazon - Eco Jurisprudence Monitor](#)> (accessed on 15th August 2024)

¹²⁰ Section 2 of The Land Act 2012

¹²¹ Ibid

¹²² Ibid

1.5.3.5 The Land Registration Act 2012

This Act principally provides on registration of rights and interests in land.¹²³ Section 2 of the Act provides that the Act's main purpose is to establish a system for recording land transactions and ownership. By providing a clear land tenure system it indirectly contributes to the sustainable use of land and hence environmental protection. In addition, it submitted that the Act also has indirect relevance towards ensuring that the Kenyan state meets its constitutional obligation towards maintaining a clean and healthy environment. One way through which this is the case is by requiring that government registration officers comply with principles of environmental governance.¹²⁴ In this regard, for example, the land registration officers would be expected not to register and issue titles to persons whose land interests are found within riparian lands. This has for instance been a problem in the recent past when the Government had to resort to demolition of structures whose owners had valid titles that were issued irregularly.¹²⁵ By issuing titles within riparian areas, the Government Registration officers undermined the country's collective constitutional obligation requiring that the Government puts into place measures towards ensuring a clean and healthy environment.¹²⁶

1.5.3.6 The Water Act 2016

This legislation governs the use, preservation, and management of water resources. To ensure the sustainable use of water resources, it establishes under

¹²³ Section 1 of the Land Registration Act 2012

¹²⁴ Section 2 of the Land Registration Act 2012

¹²⁵ Collins Kweyu, 'Traders Allege Extortion on Demolition of Buildings on Riparian Lands' (2024) *The Standard* <https://www.standardmedia.co.ke/health/national/article/2001496654/traders-allege-extortion-in-demolition-of-buildings-on-riparian-land> (accessed on 30th August 2024). See also, Gilbert Koech, 'Uproar as Reclamation of Riparian Areas Gains Steam' (4th June 2024) *The Star* <<https://www.the-star.co.ke/news/2024-06-04-outcry-as-reclamation-of-riparian-areas-gains-steam/>> (accessed on 30th August 2024)

¹²⁶ Ibid

section 7 the Water Resource Management Authority (WRMA).¹²⁷ Furthermore, it provides for the protection of water catchment areas by ensuring that they are preserved and this is essential in maintaining the natural flow and quality of natural resources.¹²⁸ The Act defines water catchment areas as a vulnerable water resource and provides that special measures are necessary to ensure their conservation.¹²⁹ The Act ensures the realization of the right to a clean and healthy environment by encouraging water conservation measures, this is done through vesting all water resources on the state to ensure they are properly managed.¹³⁰ Furthermore, the Act mandates the classification of water resources and determination of quality objectives, this helps in setting and enforcing standards for water quality thereby protecting water bodies from pollution.¹³¹

1.5.3.7 The Wildlife Conservation and Management Act 2013

This Act provides for the protection and conservation of wildlife and their habitats in Kenya and it also plays an instrumental role in the quest to ensure a clean environment in Kenya. For one, it provides for the preservation of protected areas including national parks, game reserves and sanctuaries in order to safeguard wildlife.¹³² In addition, it also regulates the trade in wildlife and wildlife-related products.¹³³ It also addresses the challenges that come with human-wildlife conflicts while also providing for mitigation measures.¹³⁴ The Act promotes community participation in wildlife conservation through the establishment of Community Wildlife Associations. [These associations empower local communities to manage and protect wildlife resources, fostering sustainable practices and environmental stewardship.](#)¹³⁵

¹²⁷ Section 7 of the Water Act 2016

¹²⁸ Section 22 of The Water Act 2016

¹²⁹ Ibid

¹³⁰ Section 5 of the Water Act 2016

¹³¹ Section 83 of the Water Act 2016

¹³² Section 15 of The Wildlife Conservation and Management Act 2013

¹³³ Section 40 of The Wildlife Conservation and Management Act 2013

¹³⁴ Section 30 of The Wildlife Conservation and Management Act 2013

¹³⁵ Section 18 of The Wildlife Conservation and Management Act 2013

1.6 Granting Rights to Nature

Whereas the proposal to grant rights to nature may today be considered laughable by a great many people, it is however submitted that tenets of this belief system existed even in pre-colonial Kenyan societies.¹³⁶ In the traditional African societies, regardless of the ethnicity, belief systems and cultural values were an important aspect of the historical heritage and identity of the people.¹³⁷ These communities lived with deep reverence and appreciation of the natural world by acknowledging each other and the general human community of life as they did with the nature around them.¹³⁸ This system was anchored on the belief that the existence of the environment was because of God as well as both the seen and unseen entities.¹³⁹ These communities believed that land belonged not only to one person but the community as a whole and all the resources ought to have been used for the benefit of the living, dead and the unborn.¹⁴⁰ Notably, however, the emergence of modern institutions has undermined the traditional ways of conserving the environment.¹⁴¹ However, upon such indigenous beliefs, are some of the arguments that have been used to justify the recognition of the rights of

¹³⁶ Julius Gathogo, 'Environmental Management and African Indigenous Resources: Echoes from Mutira Mission, Kenya (1912-2012)' (2013) 39(2), *Studia Historiae Ecclesasticae*

¹³⁷ Garima Rawat and Sanjit Mishra, 'Spirituality and Environment: Significance of Indigenous Knowledge Systems in Africa and challenges' (January 2021) XII(1) *Literary Endeavor* 56

¹³⁸ James N. Amanze, 'African Approaches to the Protection and Conservation of the Environment: The Role of African Traditional Religions' (2024) 2750 *Brill Schoningh*, <https://www.researchgate.net/publication/378997860_African_Approaches_to_the_Protection_and_Conservation_of_the_Environment_The_Role_of_African_Traditional_Religions/fulltext/65f5829ac05fd268801a934b/African-Approaches-to-the-Protection-and-Conservation-of-the-Environment-The-Role-of-African-Traditional-Religions.pdf> (accessed on 19th April 2024)

¹³⁹ Philomena A. Ojomo, 'An African Understanding of Environmental Ethics: Thought and Practice' (2010) 2 *A Journal of the Philosophical Association of Kenya* 49

¹⁴⁰ Ibid

¹⁴¹ Kariuki Muigua, Giving Natural Resources a Legal Personality: A Kenyan Perspective (2020) 1 *KMCO*, <<https://kmco.co.ke/wp-content/uploads/2020/11/Giving-Natural-Resources-a-Legal-Personality-A-Kenyan-Perspective-Kariuki-Muigua-November-2020.pdf>>, accessed on 7th April 2024

nature in other jurisdictions. An example of this is where perspectives that place emphasis on an environmentally conscious lifestyle, over economic development, have been enacted in law.¹⁴²

The Kenyan Constitution allows one to institute a claim before a court stating that their right to a healthy and clean environment has been infringed, as a result, people are able to seek, among other remedies, compensation and redress for themselves.¹⁴³ Granting legal personality to nature would require the legal framework to recognize the unique nature of the resource entity. This would include, among other things, the right to survive, to clean water and air, right to balance, to remain unpolluted, the right to prevent genetic modification, and the right to prevent human interference with nature's cycles.¹⁴⁴ Furthermore, considering the fact that nature cannot act for itself, it follows that a system of guardianship would need to be established in order to ensure that the environment has a voice.¹⁴⁵ Notably, the recognition of nature's personhood will come with both rights and responsibilities. The Constitution of Kenya defines a person to include both natural and unnatural entities, hence, implying that corporations fall into this category.¹⁴⁶ The foregoing, therefore, means that if the environment is to be granted the same rights as those of a person, then there would be need to expand the definition to include a person as well. Further, there will also be need to define on whether the legal personhood entails duties and what these duties would entail seeing that the environment in itself provides

¹⁴² Ibid

¹⁴³ Clarice Wambua, 'When can a river sue you? Implementing a rights of nature approach in environmental management,(CDH Incorporated, 15th June 2022) <<https://www.cliffedekkerhofmeyr.com/news/publications/2022/Practice/Environmental/environmental-law-alert-15-june-2022-when-can-a-river-sue-you-implementing-a-rights-of-nature-approach-in-environmental-management-.html>> accessed on 7th January 2024

¹⁴⁴ Ibid

¹⁴⁵ Ibid

¹⁴⁶ Article 260 of The Constitution of Kenya 2010

humans with immeasurable benefits.¹⁴⁷

Granting rights to nature would mean the environment in itself would have the *locus standi* to institute court proceedings similar to that of natural and non-natural persons.¹⁴⁸ Having such personality would mean guardians of specific tenets of the environment and natural resources or any well-meaning citizen would be able to file for legal action when the right has been infringed and hold the people responsible for this violation accountable. This would ensure that where the decision is in favor of the environment, one can ensure that redress arising therefrom is applied towards the benefit of the environment by restoring it to its original state prior to the environmental damage, instead of simply granting compensation to victims of the pollution.¹⁴⁹

1.7 Enforcement of The Rights of Nature

Rights of nature may be enforced in a variety of ways. Some of the most common ways through which the same is attained are as discussed below.

1.7.1 Criminal Enforcement

In Kenya, criminal; enforcement entails various institutions and laws created to maintain public order, to uphold the law and to ensure justice, it focuses on public wrongs and it is the state's mandate to ensure the same is upheld.¹⁵⁰ This may apply in the sense that any act or omission which leads to the violation of the rights of nature may be treated as an offence. Criminal enforcement of

¹⁴⁷ Matthew Hunt, 'Rights of Nature: What are they, where do they come from and why they are important', (2022) *Pogust Goodhead* < [Rights of Nature: what are they, where do they come from, and why are they important? - Pogust Goodhead](#)> (accessed on 15th August 2024)

¹⁴⁸ Ibid

¹⁴⁹ Sandhya P. Kalmhdhad, 'A Shift from Anthropocentric to Ecocentric Approach for Management and Protection of Specific Species: A Case Study' (2018) 22(2) *Indian Journal of Environmental Sciences* 61 <<https://ijesonline.co.in/wp-content/uploads/2018/11/61-67-Kalamdhad-2018.pdf>> (accessed on 18th April 2024)

¹⁵⁰ International Commission of Jurists, 'Criminal Justice Reforms: Issues and Options for Kenya', (ICJ,2018)< [CRIMINAL JUSTICE REFORMS: ISSUES AND OPTIONS FOR KENYA - ICJ Kenya \(icj-kenya.org\)](#)> (accessed on 15th August 2024)

environmental rights is not a novel concept in the Kenyan legal context, an example of this is the Prevention of Cruelty to Animals Act 1962. This legislation makes it an offence to put animals through torture and anyone found guilty of this offence may be liable to a fine of Kshs. 3,000 or be imprisoned for a period of up to 6 months or to both.¹⁵¹ Additionally, The Environmental Management and Coordination Act 1999 provides for criminal offences punishable under law for instance, the act provides that water pollution is prohibited and any person found guilty of the same is liable to imprisonment for a term not exceeding two years or a fine not exceeding two million shillings or both.¹⁵² The Forest Conservation and Management Act 2022 also provides that it is an offence for anyone found felling a protected tree, species or family of trees.¹⁵³ The Wildlife Management and Coordination Act 2013 also criminally enforces environmental rights i.e. by making it an offence to pollute designated wildlife area contrary to the provisions of the Act.¹⁵⁴

Another offence that may be included, as a way of enforcing the rights of nature, is the offence of ecocide which is defined as the willful and unlawful actions by humans that are likely to cause mass destruction of the environment.¹⁵⁵ Jurisdictions that recognize ecocide as an offence place the period of imprisonment to be between 8 and 20 years.¹⁵⁶

1.7.2 Civil Enforcement

Civil enforcement refers to the legal processes and procedures used to enforce private rights and obligations, unlike criminal enforcement which deals with the

¹⁵¹ Section 3(3) Prevention of Cruelty to Animals Act 1962

¹⁵² Section 72 of the Environmental Management and Coordination Act 1999

¹⁵³ Section 40 of The Forest Conservation and Management Act 2022

¹⁵⁴ Section 89 The Wildlife Management and Coordination Act 2013

¹⁵⁵ Stop Ecocide International, < <https://www.stopecocide.earth/>>, accessed on 19th April 2024

¹⁵⁶ Ibid

state often civil disputes relates to matters between individuals and entities.¹⁵⁷ This may be done through legal representatives, custodians and guardians of nature. They may be individuals, a community of people who act as the face of nature and speak on its behalf approaching the court for an appropriate order and such an order may be used for the benefit of the environment.¹⁵⁸

1.8 Arguments for and Against the Granting of Rights to Nature

1.8.1 Arguments Against Granting Rights to Nature

1.8.1.1 Lack of Limitation as to the Scope of Nature's Rights

Critics of the Rights of Nature claim that there is no limitation in regards to what it means to grant rights to nature.¹⁵⁹ They contend that a declaration that "nature should have legal rights" is a way to avoid answering a number of very difficult questions.¹⁶⁰ Some of such questions include the questions such as; Which parts of nature? And what do the rights actually consist of? Etc. Whereas supporters of the Rights of Nature movement argue that all living creatures are entitled to legal protections, critics, however, offer a contrary argument by pointing out the fact that there are probably between 8.7 million and over a trillion species, including microorganisms, on earth.¹⁶¹ As a result, they argue that seeking to bestow legally

¹⁵⁷ Terry Njueini, 'Distinction between Civil and Criminal cases in Kenya', (2024) *Haki Africa* <<https://hakifm.or.ke/distinction-between-criminal-and-civil-cases-in-kenya/#:~:text=While%20criminal%20cases%20focus%20on,parties%20and%20provide%20compensation%20or>>, (accessed on 15th August 2024)

¹⁵⁸ *Ibid*

¹⁵⁹ Visa Kurki, 'Can Nature Hold Rights? It's not as easy as you think' (2022) 11(3) *Transnational Environmental Law* 525 <[Can Nature Hold Rights? It's Not as Easy as You Think | Transnational Environmental Law | Cambridge Core](#)> (accessed on 15th August 2024)

¹⁶⁰ Tiffany Challe, 'The Rights of Nature: Can an Eco-system bear legal rights?', (Columbia Climate School, 2021), <[The Rights of Nature – Can an Ecosystem Bear Legal Rights? – State of the Planet \(columbia.edu\)](#)>, accessed on 15th August 2024

¹⁶¹ Noah Sachs, A wrong turn with the rights of nature movement, (2023) Vol 36 *Georgetown Environmental Law Review*

binding rights upon every species, as well as upon each individual creature within a species is hardly practical to carry out.¹⁶²

1.8.1.2 Judicialization of Environmental Protection

Furthermore, critics argue that the Rights of Nature movement puts a lot of emphasis on the judiciary with regard to environmental protection and depends on the courts to decide tort-like lawsuits filed on behalf of natural entities against alleged corporate or human wrongdoers.¹⁶³ In this regard, critics argue that judicialization is a bad way to deal with environmental problems considering that judges are not technically qualified to take the lead in tackling diffuse and complex environmental problems such as climate change and biodiversity loss. Therefore, it is often argued that the most serious types of environmental damage cannot be prioritized by courts since they only hear lawsuits submitted by litigants.¹⁶⁴

1.8.1.3 Grant of Rights of Nature May be Used as a Legal Weapon Against Other People

Critics also argue that there will not be many benefits for nature to balance out the repressive outcomes that the Rights of Nature movement is likely to bring about for people.¹⁶⁵ This criticism is premised on the view that the movement aims to subordinate human rights under the constitution and statutes to the legal rights of rivers, plants, and insects, which are considered to be countervailing.¹⁶⁶ The core of the argument by the proponents of the rights of nature is the devaluation of human rights, needs, and interests, which is promoted as a means of ending anthropocentrism in the legal system.¹⁶⁷ The legal ramifications of this

¹⁶² Ibid.

¹⁶³ Visa Kurki, *supra*.

¹⁶⁴ Ibid

¹⁶⁵ Tiffany Challe, 'The Rights of Nature: Can an Eco-system bear legal rights?' (April 2021) *State of the Planet* <[The Rights of Nature – Can an Ecosystem Bear Legal Rights? – State of the Planet \(columbia.edu\)](#)> (accessed on 15th August 2024)

¹⁶⁶ Ibid

¹⁶⁷ Ibid

unwarranted interference with people's endeavors would be severe. For instance, we may witness haphazard lawsuits against human endeavors that alter nature in any manner, including as farming, fishing, and building, if Rights of Nature movement viewpoints are adopted.¹⁶⁸ In this regard, for example, even eating, which is one of the near universal human activities that causes harm to living things, may be challenged. People may use nature's newfound legal rights as a weapon against other people, hence, employing them to intimidate adversaries, hurt rival businesses, stall government programs in court, or obstruct desperately needed housing and infrastructure projects.¹⁶⁹

1.8.1.4 Environmental entities granted legal rights may become vulnerable to law suits themselves

Another concern that arises with the idea of granting legal personhood and rights to nature and environmental entities is that if nature is deemed a legal entity with rights then does it also mean that it can also be held liable for its acts or omissions?¹⁷⁰ In this regard, for example, could a river be sued for property damage, for instance, if it floods and causes damage? This brings up difficult issues with accountability. In such an instance where the environmental entity is found liable who, then, would be held responsible in terms of compensation or damages, where need be?¹⁷¹

It is however submitted that according nature rights under law may not be enough to address the challenge in environmental management and this implementation will not be without challenges. This, however, is no reason to discredit it since the framework of environmental conservation and management

¹⁶⁸ Ibid

¹⁶⁹ Ibid

¹⁷⁰ Katie Surma, 'Does Nature Have Rights? A Burgeoning Legal Movement Says Rivers, Forests and Wildlife have Standing Too' (September 2021) *Inside Climate News* <[Does Nature Have Rights? A Burgeoning Legal Movement Says Rivers, Forests and Wildlife Have Standing, Too - Inside Climate News](#)> (accessed on 15th August 2024)

¹⁷¹ Mauricio Guim, 'Where Nature's Rights Go Wrong' (2021) 107 (7), *Virginia Law Review* 1347.

has a lot more to gain than it does to lose.

1.9 Conclusion

in conclusion, it is noted that the incorporation of ecocentrism into Kenya's legal framework is a daring move in the direction of a sustainable future. Kenya may establish a standard for environmental protection that strikes a balance between human advancement and ecological integrity by rethinking legislative frameworks to recognize the rights of nature. Although the transition to an ecocentric legal framework may not be easy, it would, however, be a necessary step towards offering effective guarantees for future generations' access to the natural legacy. Kenya has the chance to set an exemplary example and become a ray of hope for the pursuit of a more just and environmentally sustainable legal system as the world looks on.

**Journal Review: Journal of Appropriate Dispute Resolution (ADR) and
Sustainability - Volume 2 Issue 3**

By: James Njuguna *

Published in August 2024, Journal of Appropriate Dispute Resolution (ADR) & Sustainability, Volume 2, Issue 3, is aimed at a worldwide audience and is focused on disseminating knowledge and creating a platform for scholarly debate on pertinent and emerging areas in the fields of Dispute Resolution and Sustainability.

It is edited by Hon. Prof. Kariuki Muigua Ph.D,FCI Arb,Ch.Arb, OGW who has earned his reputation as a distinguished legal practitioner in Kenya and a leading environmental scholar in Africa and the world. The Journal is peer reviewed and refereed in order to adhere to the highest quality of academic standards and credibility of information.

Hon. Prof. Kariuki Muigua Ph.D,FCI Arb,Ch.Arb, OGW has demonstrated his prowess and sound understanding of Climate Change in his paper 'Embracing Community Based Empowerment Approaches for Climate Change Adaptation and Mitigation'. The paper highlights the importance of legal frameworks that support community-led initiatives and encourage collaboration among many stakeholders.

'Permanent Court of Arbitration and Contract-Based Dispute Resolution (including Conciliation)' by Dr. Wyne Mutuma captures the growth of the Permanent Court of Arbitration from its Genesis in 1899 to its present role in settling disputes.

Michael Sang in 'The Case for a Digitized Criminal Records Management System in Kenya: A Proposal for Reform' advocates for a transformative reform in Kenya's

* MCI Arb; LLM (UoN) LL.B (MKU) PGD (KSL); Law Lecturer - University of Embu; Senior Advocate - Kariuki Muigua & Co. Advocates; Email: njuguna@kmco.co.ke

criminal justice system through the adoption of a digitized criminal records management approach. Drawing lessons from jurisdictions such as the United Kingdom, the United States and the European Union, the paper elucidates the establishment of centralized authorities, independent oversight bodies, and seamless interagency coordination.

'Integrating ESG Principles into Arbitration: Challenges and Best Practices' by David Onsare explores the impact of ESG considerations on arbitration, identifying key obstacles such as the lack of standardized metrics, the tension between confidentiality and transparency and the limited expertise of arbitrators in ESG matters.

Ontweka Yvonne Kwamboka in *'The Role of Global Institutions in Advancing Environmental Justice'* primarily unravels matters on environmental justice as far as courts are concerned, the Alternative Dispute Resolution mechanisms in pursuit of solving ecological issues, and the assessment of the progress of implementation of the environmental laws already in place.

'The Permanent Court of Arbitration and Investor-State Dispute Resolution (including Conciliation)' by Dr. Wyne Mutuma highlights the significance of Investor-State Dispute Resolution in providing a clear and impartial legal framework for dispute adjudication, thereby fostering a stable and predictable investment climate and shows how the Permanent Court of Arbitration resolves disputes relating to investor-state agreements.

Paula Kilusi and Hon. Prof. Kariuki Muigua, OGW in *'Attaining Environmental Sustainability in Kenya: Challenges and Prospects'* critically examines the progress made towards attaining environmental sustainability in Kenya. It also discusses factors hindering the realization of environmental sustainability in Kenya.

'The Urgent Need for a Legal Framework for Court Interpreters in Kenya: A Remedy for Justice Lost in Translation' by Michael Sang explores the urgent need for a formalized legal framework for court interpreters in Kenya, aiming to enhance

James Njuguna

the fairness and effectiveness of judicial proceedings. Drawing on lessons from the United Kingdom, where rigorous standards for certification, accreditation, and professional regulation of court interpreters have been successfully implemented, this paper proposes specific legislative reforms and institutional frameworks for Kenya.

Bona Bol Madut Ayii in '*Climate Change and its Impact on Health and The Economy of South Sudan*' focuses on highlighting the various challenges brought about by climate change in South Sudan.

Mwati Muriithi has undertaken a detailed review of Journal of Alternative Dispute Resolution (ADR), Volume 12, Issue 4 which is a special edition conference journal for the 2024 Chartered Institute of Arbitrators Kenya Branch 40th International Arbitration & ADR Conference held from 15th to 17th May 2024 in Nairobi, Kenya.

'The Use of Voice and Facial Recognition Technology in Kenya's Criminal Justice System: Lessons from Comparative Experience' by Michael Sang delves into the intricate landscape of Voice and Facial Recognition Technology (VFRT) within Kenya's criminal justice system, presenting a comprehensive analysis enriched by global comparative experiences.

Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices

By: *Murithi Antony** and *Chepkoech Charity***

Abstract

The incorporation of Environmental, Social, and Governance aspects in corporate governance has indisputably changed the business operating environment globally. As pressure mounts from stakeholders, regulators, and investors, the need to include ESG within the governance structure grows increasingly noticeable for companies. This paper gives an in-depth analysis of how ESG considerations are changing corporate governance through the examination of trends, challenges, and best practices, with practical recommendations that enhance ESG integration. Key challenges identified include vague regulations, financial limitations, and a lack of awareness among businesses, which hinder effective ESG implementation. The paper proposes adopting best practices from other jurisdictions, establishing clearer guidelines, enhancing stakeholder engagement, and improving enforcement mechanisms; with an aim to align Kenyan corporate governance with global standards and promoting long-term sustainability.

1. Introduction

Environmental, Social and Governance (ESG) refers to a set of criteria used to assess a company's operations and performance in areas that are increasingly recognized as important for long-term sustainability and ethical responsibility.¹

**LL.B (Hons), UoEm; Climate and Environmental Policy Specialist; Research Assistant at Centre for Climate Change Adaptation and Mitigation (CCCAM) – University of Embu; Lawyer at Njuguna & Njuguna Co. Advocates; National Director at the International Students Environmental Coalition (ISEC) – Kenya*

***LL.B (Cnd), UoEm, Research Assistant at Centre for Climate Change Adaptation and Mitigation (CCCAM) – University of Embu; Projects Director at the International Students Environmental Coalition (ISEC) – Kenya.*

¹ Annesi, N., Battaglia, M., Ceglia, I., & Mercuri, F. (2024). Navigating paradoxes: building a sustainable strategy for an integrated ESG corporate governance. *Management Decision*.

These categories provide a framework through which one can contextualize a company's handling of its impact on the world environmentally, socially and in governance aspects.² The environmental aspect analyses a company in terms of performance in the natural environment.³ It considers energy consumption, management of waste, pollution, observance of any conservation operation, and adherence to set environmental laws.⁴ The companies are assessed by how they will be able to control their carbon footprint, efficiently use the available resources, and engage in sustainable practices.⁵

The social aspect encompasses how the firm's behavior on matters labor practices, diversity and inclusion, human rights, health and safety, community engagement associated with employees, suppliers, customers, and communities

< <https://www.emerald.com/insight/content/doi/10.1108/MD-10-2023-2006/full/html>>. (accessed on 30 Aug. 2024)

² Hoang, T. (2018). The role of the integrated reporting in raising awareness of environmental, social and corporate governance (ESG) performance. In *Stakeholders, governance and responsibility* (pp. 47-69). Emerald Publishing Limited. https://www.researchgate.net/publication/327349334_The_Role_of_the_Integrated_Reporting_in_Raising_Awareness_of_Environmental_Social_and_Corporate_Governance_ESG_Performance. (accessed on 30 Aug. 2024)

³ Annesi, N., Battaglia, M., Ceglia, I., & Mercuri, F. (2024). Navigating paradoxes: building a sustainable strategy for an integrated ESG corporate governance. *Management Decision*. < <https://www.emerald.com/insight/content/doi/10.1108/MD-10-2023-2006/full/html>>. (accessed on 30 Aug. 2024)

⁴ Maroun, W. (2022). Corporate governance and the use of external assurance for integrated reports. *Corporate Governance: An International Review*, 30(5), 584-607. < <https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12430>>. (accessed on 30 Aug. 2024)

⁵ Karwowski, M., & Raulinajtys-Grzybek, M. (2021). The application of corporate social responsibility (CSR) actions for mitigation of environmental, social, corporate governance (ESG) and reputational risk in integrated reports. *Corporate Social Responsibility and Environmental Management*, 28(4), 1270-1284. < <https://onlinelibrary.wiley.com/doi/abs/10.1002/csr.2137>>. (accessed on 30 Aug. 2024)

where the business operates.⁶ Firms are graded based on how much they contribute to society and in the treatment of people both within the organization and outside it.⁷ Governance, on the other hand, refers to the systems, practices, and policies internally employed by a company to govern it to arrive at effective decisions.⁸ This encompasses the board structure, executive compensation, transparency, accountability, and shareholder rights.⁹ Good governance ensures that the company acts in an ethical manner in the interest of stakeholders.¹⁰

ESG criteria have become a growing tool of choice for investors, regulators, and consumers alike to measure the degree of sustainability of a company and its ethical impact.¹¹ This can then often influence their investment decisions, regulatory compliance, or even brand reputation.¹²

⁶ Kim, S., & Li, Z. (2021). Understanding the impact of ESG practices in corporate finance. *Sustainability*, 13(7), 3746. < <https://www.mdpi.com/2071-1050/13/7/3746>>. (accessed on 30 Aug. 2024)

⁷ Câmara, P. (2022). The systemic interaction between corporate governance and ESG. In *The Palgrave handbook of ESG and corporate governance* (pp. 3-40). Cham: Springer International Publishing. < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4474337>. (accessed on 30 Aug. 2024)

⁸ Pollman, E. (2022). The making and meaning of ESG. *U of Penn, Inst for Law & Econ Research Paper*, (22-23). < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4219857>. (accessed on 30 Aug. 2024)

⁹ *Ibid*

¹⁰ Cundill, G., & Wilson, H. (2020). ESG. *A framework for corporate governance and its environmental, social, and financial outcomes. Academy of Management Proceedings*, 18896. < https://www.researchgate.net/publication/343373214_ESG_A_Framework_for_Corporate_Governance_and_its_Environmental_Social_and_Financial_Outcomes>. (accessed on 30 Aug. 2024)

¹¹ Huang, D. Z. (2021). Environmental, social and governance (ESG) activity and firm performance: A review and consolidation. *Accounting & finance*, 61(1), 335-360. < <https://ideas.repec.org/a/bla/acctfi/v61y2021i1p335-360.html>>. (accessed on 30 Aug. 2024)

¹² *Ibid*

2. Evolution and Global Integration of ESG in Corporate Structures

ESG integration marks a paradigm shift from strictly finance oriented business practices in corporate governance.¹³ Tradition-minded corporate governance functioned on the basis of a single goal, that is maximization of shareholder value, often sidelining the broader impacts of business activities on society and the environment.¹⁴ However, growing awareness of global challenges such as climate change, social inequality, and corporate ethics has catalyzed a broader approach that integrates ESG factors into business strategies.¹⁵

Globally, the integration of ESG criteria has become a key trend as shareholders increasingly demand that companies address these factors.¹⁶ This process is driven primarily by investors, who understand that ESG can greatly influence long-term corporate financial performance and sustainability.¹⁷ For example, in

¹³ Hoang, T. (2018). The role of the integrated reporting in raising awareness of environmental, social and corporate governance (ESG) performance. In *Stakeholders, governance and responsibility* (pp. 47-69). Emerald Publishing Limited. https://www.researchgate.net/publication/327349334_The_Role_of_the_Integrated_Reporting_in_Raising_Awareness_of_Environmental_Social_and_Corporate_Governance_ESG_Performance. (accessed on 30 Aug. 2024)

¹⁴ Annesi, N., Battaglia, M., Ceglia, I. and Mercuri, F. (2024), "Navigating paradoxes: building a sustainable strategy for an integrated ESG corporate governance", *Management Decision*, Vol. ahead-of-print No. ahead-of-print. <<https://doi.org/10.1108/MD-10-2023-2006>> Accessed 30 Aug. 2024

¹⁵ Hoang, T. (2018), "The Role of the Integrated Reporting in Raising Awareness of Environmental, Social and Corporate Governance (ESG) Performance", *Stakeholders, Governance and Responsibility (Developments in Corporate Governance and Responsibility, Vol. 14)*, Emerald Publishing Limited, Leeds, pp. 47-69. <<https://doi.org/10.1108/S2043-052320180000014003>> Accessed 30 Aug. 2024

¹⁶ Maroun, W. (2022). Corporate governance and the use of external assurance for integrated reports. *Corporate Governance: An International Review*, 30(5), 584-607. <<https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12430>>. Accessed 30 Aug. 2024.

¹⁷ Crifo, Patricia, et al. "Corporate Governance as a Key Driver of Corporate Sustainability in France: The Role of Board Members and Investor Relations." *Journal of Business Ethics*, vol. 159, no. 4, 2019, pp. 1127-46. JSTOR, <http://www.jstor.org/stable/45219475>. Accessed 30 Aug. 2024.

the United Kingdom, it can be seen from the legislative and regulatory steps taken that ESG integration has been embedded in the system of corporate governance.¹⁸ For example, the UK Companies Act 2006 requires the directors of companies to consider the long-term implications of their decisions, among other factors, on social and environmental matters in the decision-making process.¹⁹ Similarly, the Financial Conduct Authority has developed some of the strictest requirements on ESG disclosures for listed companies, which cements the better need for transparency and accountability in ESG reporting.²⁰

A bid to learn from the lessons experienced by the UK in the integration of ESG aspects helps provide a pathway for other jurisdictions, including Kenya. With good regulatory frameworks and best practices, Kenyan businesses can borrow a leaf and learn how to effectively place ESG considerations at their governance frameworks.²¹ The United Kingdom proves to be a case study for underpinning strong and effective ESG regulations in leading actual change, enhancing corporate accountability, and aligning business with global sustainability goals.²²

¹⁸ Dicuonzo, G., Donofrio, F., Iannuzzi, A. P., & Dell'Atti, V. (2022). The integration of sustainability in corporate governance systems: an innovative framework applied to the European systematically important banks. *International Journal of Disclosure and Governance*, 19(3), 249-263. < <https://link.springer.com/article/10.1057/s41310-021-00140-2>>. Accessed 30 Aug. 2024.

¹⁹ Companies Act. (2006). *Companies Act 2006*, c. 46. Retrieved from <https://www.legislation.gov.uk>

²⁰ Zenkina, I. (2023). Ensuring the transparency of ESG reporting based on the development of its standardization. In *E3S Web of Conferences* (Vol. 371, p. 05077). EDP Sciences. https://www.e3s-conferences.org/articles/e3sconf/abs/2023/08/e3sconf_afe2023_05077/e3sconf_afe2023_05077.html. Accessed on 30 Aug. 2024.

²¹ Muigua, P. D. (2022). Embracing Environmental, Social and Governance (ESG) Principles for Sustainable Development in Kenya. *Social and Governance (ESG) Principles for Sustainable Development in Kenya* (December 27, 2022). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4312699. Accessed on 30 Aug. 2024.

²² de Souza, L. M. (2024). Benchmarking of National ESG Banking. *Sustainable Finances and the Law: Between Public and Private Solutions*, 16, 27.

A comparable perspective brings into focus the need for Kenyan firms to adopt such practices to remain competitive and in compliance with the expectations of the stakeholders.²³

The role of the ESG considerations in corporate governance within the Kenyan establishment is, at some points, embryonic. Recent efforts, such as the introduction of ESG reporting guidelines by the Nairobi Securities Exchange (NSE), represent significant progress towards aligning Kenyan practices with international standards.²⁴ These guidelines require listed companies to disclose their environmental and social impacts, as well as their governance practices.²⁵ While this is a positive step, the integration of ESG into Kenyan corporate governance faces several challenges, including gaps in regulatory guidance, limited awareness among businesses, and financial constraints.²⁶

Evidently, the Kenyan regulatory framework on integration of ESG is still at a

<https://www.researchgate.net/publication/379627896_Benchmarking_of_National_ESG_Banking_Regulations_State_of_Art_and_Remaining_Challenges>. Accessed on 30 Aug. 2024

²³ Maroun, W. (2022). Corporate governance and the use of external assurance for integrated reports. *Corporate Governance: An International Review*, 30(5), 584-607. <<https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12430>>. Accessed on 30 Aug. 2024

²⁴ See, Bowmans; "Kenya: Nairobi Securities Exchange Published ESG Disclosures Manual" available at <<https://bowmanslaw.com/insights/kenya-nairobi-securities-exchange-published-esg-disclosures-manual/#:~:text=The%20demand%20for%20ESG%20information,the%20end%20of%20November%202021.>>> accessed on 30 Aug. 2024

²⁵ *Ibid*

²⁶ Mgbame, C. O., Aderin, A., Ohalehi, P., & Chijoke-Mgbame, A. M. (2020). Achieving sustainability through environmental social governance reporting: overcoming the challenges. In *Environmentalism and NGO accountability* (Vol. 9, pp. 9-25). Emerald Publishing Limited.<https://www.researchgate.net/publication/346878722_Achieving_Sustainability_through_Environmental_Social_Governance_Reporting_Overcoming_the_Challenges>. Accessed on 30 Aug. 2024.

relatively nascent stage compared to other mature jurisdictions like the UK.²⁷ The evolution of ESG practices in Kenya will depend on continued regulatory developments, increased awareness among businesses, and the adoption of best practices from international markets.²⁸ Addressing these challenges, leveraging global insights is where Kenyan ESG integration will reach the desired level of accomplishment.

3. Legal and Regulatory Framework for ESG Compliance in Kenya

Kenya's legal framework for ESG integration is shaped by various regulations and guidelines that aim to promote environmental and social responsibility among businesses.²⁹ Indeed, provisions do exist within the Companies Act 2015, requiring a company domiciled within Kenya to consider its impact on the environment as well as society.³⁰ The Act mandates directors to act in the best interest of the company, which includes considering the long-term implication of the decision taken by the board on the environment and the society.³¹ This provision is in line with the global trend of integrating ESG issues into corporate governance and shows that the country is committed to sustainability.³²

²⁷ Annesi, N., Battaglia, M., Ceglia, I., & Mercuri, F. (2024). Navigating paradoxes: building a sustainable strategy for an integrated ESG corporate governance. *Management Decision*. <<https://www.emerald.com/insight/content/doi/10.1108/MD-10-2023-2006/full/html>>. Accessed on 30 Aug. 2024

²⁸ Sonko, K. N., & Sonko, M. (2023). ESG: The Way Forward for Stakeholders. In *Demystifying Environmental, Social and Governance (ESG) Charting the ESG Course in Africa* (pp. 267-282). Cham: Springer International Publishing. <https://ideas.repec.org/h/pal/psifcp/978-3-031-35867-8_8.html>. Accessed on 30 Aug. 2024.

²⁹ Kilusi, P., & Muigua, K. Attaining Environmental Sustainability in Kenya: Challenges and Prospects. <<http://kmco.co.ke/wp-content/uploads/2018/08/FOOD-SECURITY-AND-ENVIRONMENTAL-SUSTAINABILITY-IN-KENYA.pdf>>. Accessed on 30 Aug. 2024

³⁰ The Companies Act. No. 17 Of 2015.

³¹ *Ibid*

³² *Ibid*

The Capital Market's Act is also very instrumental in ensuring that good ESG practices are adopted by the listed company.³³ This Act requires companies to disclose information pertaining to their practice in relation to environmental and social needs, which utilizes investors by offering an insight into the ESG performance of the company.³⁴ In addition, the NSE deepened the embedding of ESG through setting up guidelines that require listed companies to report on their ESG activities and performance.³⁵ The guidelines aim at enhancing transparency and accountability in ESG reporting and developing Kenyan practice to be at par with international standards.³⁶

Despite these measures, Kenya's ESG regulatory framework remains relatively underdeveloped compared to the UK. The UK's comprehensive ESG regulations, including detailed disclosure requirements and robust enforcement mechanisms, provide a higher level of transparency and accountability.³⁷ For example, the corporate governance standards in the Companies Act 2006 and ESG disclosure requirements by the FCA create a benchmark and provide very good lessons to Kenya in shaping its framework on ESG.³⁸

³³ Capital Markets Act - Chapter 485a

³⁴ Mairu, C. (2015). Capital Markets Act in Kenya: Deregulation of the Financial Services Sector and Consequence on Consumer Protection. Available at SSRN 2765939. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2765939. Accessed on 30 Aug. 2024

³⁵ *Ibid*

³⁶ Agutu, O. J., & Githira, W. C. (2023). Sustainability reporting and financial performance of listed financial firms in Kenya. *Journal of Accounting, Business and Finance Research*, 17(1), 31-42. <https://scipg.com/index.php/102/article/view/704>. Accessed on 30 Aug. 2024.

³⁷ Low, L. A. (2022). The All Important "G" in ESG and Its Relationship to Good Governance and Corporate Compliance in Anti-Corruption: Towards a More Holistic Approach. *Sw. J. Int'l L.*, 28, 340. < <https://www.swlaw.edu/sites/default/files/2023-05/5%20-%20Low.pdf> >. Accessed on 30 Aug 2024.

³⁸ Savi, A., & Ostrovnya, A. (2023). ESG Regulatory Framework for Asset Managers in the EU, UK, US and Singapore: the Role of Social Knowledge and Value Judgement in the Asset Managers ESG Business Strategy. *UK, US and Singapore: the Role of Social Knowledge and Value Judgement in the Asset Managers ESG Business Strategy* (December 17,

To enhance ESG integration in Kenya, the regulatory framework may benefit from adopting more detailed guidelines and enforcement mechanisms.³⁹ Policymakers and regulators have taken specific steps towards the need for the alignment of Kenyan regulations with international standards on ESG that provide enhanced support for businesses seeking to implement ESG practices, which shall further lead to effective collaboration with stakeholders for compact integration.⁴⁰ This will create an enabling environment for ESG practices and guarantee long-term sustainability.⁴¹

4. Challenges in Integrating ESG in Corporate Governance

In as much as there are many drivers towards incorporating ESG in corporate governance, there are a set of challenges that bedevil its practice, particularly in Kenya.⁴² One major challenge is navigating the complex and evolving regulatory

2023). < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4667134 >. Accessed on 30 Aug. 2024

³⁹ Aboud, A., Saleh, A., & Eliwa, Y. (2024). Does mandating ESG reporting reduce ESG decoupling? Evidence from the European Union's Directive 2014/95. *Business Strategy and the Environment*, 33(2), 1305-1320.< <https://onlinelibrary.wiley.com/doi/10.1002/bse.3543> >. Accessed on 30 Aug. 2024

⁴⁰ Muigua, K. *Embracing Environmental, Social and Governance (ESG) Principles for Sustainable Development in Kenya*. ((2022) *Journalofcmsd Volume 9(2)*). Available at <<https://journalofcmsd.net/wp-content/uploads/2022/10/Embracing-Environmental-Social-and-Governance-ESG-Principles-for-Sustainable-Development-in-Kenya.pdf>>

⁴¹ Moessa de Souza, L. (2024). Benchmarking of National ESG Banking Regulations: State of Art and Remaining Challenges. *Sustainable Finances and the Law: Between Public and Private Solutions*, 27-61. < https://www.researchgate.net/publication/379627896_Benchmarking_of_National_ESG_Banking_Regulations_State_of_Art_and_Remaining_Challenges>. Accessed on 30 Aug. 2024

⁴² Maroun, W. (2022). Corporate governance and the use of external assurance for integrated reports. *Corporate Governance: An International Review*, 30(5), 584-607. < <https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12430>>. Accessed on 30 Aug. 2024

environment.⁴³ Kenyan companies often face difficulties with unclear and inconsistent ESG guidelines, which can lead to varying levels of implementation and reporting practices.⁴⁴ This lack of clarity can create uncertainty for businesses and hinder effective ESG integration.⁴⁵ Similar challenges are observed in other jurisdictions, including the UK, where businesses must navigate complex and sometimes overlapping regulatory requirements.⁴⁶

Another challenge is managing the financial implications of ESG integration.⁴⁷ Many ESG practices are cost-intensive, involving expensive investments in

⁴³ Hoang, T. (2018). The role of the integrated reporting in raising awareness of environmental, social and corporate governance (ESG) performance. In *Stakeholders, governance and responsibility* (pp. 47-69). Emerald Publishing Limited. <https://www.researchgate.net/publication/327349334_The_Role_of_the_Integrated_Reporting_in_Raising_Awareness_of_Environmental_Social_and_Corporate_Governance_ESG_Performance>. Accessed on 30 Aug. 2024

⁴⁴ Wang, L. (2024). Challenges and Opportunities of ESG Integration in Financial Operations. In *International Conference on Finance and Economics* (Vol. 6, No. 1). <https://www.researchgate.net/publication/380354078_Challenges_and_Opportunities_of_ESG_Integration_in_Financial_Operations>. Accessed on 30 Aug. 2024

⁴⁵ Neri, S. (2021). Environmental, social and governance (ESG) and integrated reporting. *Global Challenges to CSR and Sustainable Development: Root Causes and Evidence from Case Studies*, 293-302. <https://ideas.repec.org/h/spr/csrchp/978-3-030-62501-6_14.html>. Accessed on 30 Aug. 2024

⁴⁶ Spataro, L., Quirici, M. C., & Iermano, G. (Eds.). (2023). ESG Integration and SRI Strategies in the EU: Challenges and Opportunities for Sustainable Development. <<https://link.springer.com/book/10.1007/978-3-031-36457-0>>. Accessed on 30 Aug. 2024.

⁴⁷ Cox, A. (2015). Fit-for-purpose and effective environment, social and governance (ESG) management: ESG implementation challenges, concepts, methods and tips for improvement. *Responsible Investment Banking: Risk Management Frameworks, Sustainable Financial Innovation and Softlaw Standards*, 43-58.

<https://www.researchgate.net/publication/300788671_Fit-for-Purpose_and_Effective_Environment_Social_and_Governance_ESG_Management_ESG_Implementation_Challenges_Concepts_Methods_and_Tips_for_Improvement>.

Accessed on 30 Aug. 2024

sustainable technologies and processes and reporting systems.⁴⁸ For Kenyan businesses, especially smaller companies, this could be onerous.⁴⁹ The financial pressures associated with ESG integration can affect a company's ability to adopt and maintain effective ESG practices.⁵⁰ Similar challenges are faced by businesses in the UK, although the UK has developed strategies to manage these costs, such as leveraging government incentives and support programs.⁵¹

A case study of Kenyan corporations highlights several common challenges in ESG integration. For example, some of the corporations may experience the inability to map and synchronize their ESG strategies with business objectives, thus leading to an inconsistency of the two when implemented and reported.⁵² More complications extend to low engagement with stakeholders and scant guidance by the regulatory bodies in integrating ESG.⁵³ This will be overcome by a consensus-building approach among regulators, businesses, and stakeholders.⁵⁴

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*

⁵⁰ Kuznetsova, S. N., Kuznetsov, V. P., Smirnova, Z. V., Andryashina, N. S., & Romanovskaya, E. V. (2024). Corporate Governance in the ESG Context: A New Understanding of Sustainability. In *Ecological Footprint of the Modern Economy and the Ways to Reduce It: The Role of Leading Technologies and Responsible Innovations* (pp. 53-57). Cham: Springer Nature Switzerland. <

<https://www.researchgate.net/publication/378492472_Corporate_Governance_in_the_ESG_Context_A_New_Understanding_of_Sustainability>. Accessed on 30 Aug. 2024

⁵¹ Dicuonzo, G., Donofrio, F., Iannuzzi, A. P., & Dell'Atti, V. (2022). The integration of sustainability in corporate governance systems: an innovative framework applied to the European systematically important banks. *International Journal of Disclosure and Governance*, 19(3), 249-263. < <https://link.springer.com/article/10.1057/s41310-021-00140-2>>. Accessed on 30 Aug. 2024.

⁵² *Ibid*

⁵³ Maroun, W. (2022). Corporate governance and the use of external assurance for integrated reports. *Corporate Governance: An International Review*, 30(5), 584-607. <<https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12430>>. Accessed on 30 Aug. 2024.

⁵⁴ *Ibid*

The other key challenges to ESG integration are enforcement and compliance. Companies lack a compulsion to act in a certain manner on ESG, and to report transparently on their activities.⁵⁵ Absence of complete mechanisms for enforcement in Kenya means that very little can be done to promote compliance with ESG. In the UK, there is a problem on how companies can be made to comply with disclosure requirements on ESG and best practice.⁵⁶ To this end, developing robust mechanisms of enforcement and improving regulatory oversight are key.⁵⁷

Addressing these challenges involves developing clear regulatory guidance, investing in capacity building, and fostering collaboration among stakeholders.⁵⁸ By doing so, Kenyan companies can improve their ESG integration efforts and align more closely with global standards.⁵⁹ The creation of a supportive regulatory environment for businesses and the availing of resources and incentives that will assist businesses overcome these challenges will, indisputably, set businesses towards resolving ESG integration in Kenya.⁶⁰

⁵⁵ *Ibid*

⁵⁶ *Ibid*

⁵⁷ *Ibid*

⁵⁸ Hoang, T. (2018). The role of the integrated reporting in raising awareness of environmental, social and corporate governance (ESG) performance. In *Stakeholders, governance and responsibility* (pp. 47-69). Emerald Publishing Limited. <https://www.researchgate.net/publication/327349334_The_Role_of_the_Integrated_Reporting_in_Raising_Awareness_of_Environmental_Social_and_Corporate_Governance_ESG_Performance>. Accessed on 30 Aug. 2024.

⁵⁹ Wang, L. (2024). Challenges and Opportunities of ESG Integration in Financial Operations. In *International Conference on Finance and Economics* (Vol. 6, No. 1). <https://www.researchgate.net/publication/380354078_Challenges_and_Opportunities_of_ESG_Integration_in_Financial_Operations>. Accessed on 30 Aug. 2024

⁶⁰ Ramadhani, D. (2019). Understanding environment, social and governance (ESG) factors as path toward ASEAN sustainable finance. *APMBA (Asia Pacific Management and Business Application)*, 7(3), 147-162. <<https://apmba.ub.ac.id/index.php/apmba/article/download/321/251>>. Accessed on 30 Aug. 2024.

5. Best Practices for Effective ESG Integration

Adopting best practices is crucial for effective ESG integration into corporate governance.⁶¹ Formulating a broad-based ESG policy is a fundamental step toward guiding corporate behavior and orienting ESG practices toward business objectives.⁶² Such policy needs to outline the key issues on environment, social, and governance, set goals, and give a clear line of performance metric.⁶³ An effective ESG policy will set a framework for incorporating ESG considerations into decision-making and ensures that companies are accountable for their ESG performance.⁶⁴

Second, there is need for strong mechanisms of monitoring and reporting regarding ESG practices. Companies should implement systems to track their ESG performance, assess progress towards ESG goals, and report transparently on their activities.⁶⁵ Transparent ESG reporting fosters credibility and builds trust

⁶¹ Blank, H., Sgambati, G., & Truelson, Z. (2016). Best practices in ESG investing. *The Journal of Investing*, 25(2), 103-112. < <https://quantpioneers.com/wp-content/uploads/2022/03/Best-Practices-in-ESG-Investing.pdf>>. Accessed on 30 August 2024.

⁶² Gary, S. N. (2019). Best interests in the long term: Fiduciary duties and ESG integration. *U. Colo. L. Rev.*, 90, 731. < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3149856>. Accessed on 30 Aug. 2024.

⁶³ Kotsantonis, S., Pinney, C., & Serafeim, G. (2016). ESG integration in investment management: Myths and realities. *Journal of Applied Corporate Finance*, 28(2), 10-16. <<https://www.hbs.edu/faculty/Pages/item.aspx?num=51511>>. Accessed in Aug. 2024.

⁶⁴ Nielsen, K. P., & Noergaard, R. W. (2011). CSR and mainstream investing: a new match?—an analysis of the existing ESG integration methods in theory and practice and the way forward. *Journal of Sustainable Finance & Investment*, 1(3-4), 209-221. < <https://econpapers.repec.org/RePEc:taf:jsustf:v:1:y:2011:i:3-4:p:209-221>>. Accessed on 30 August 2024.

⁶⁵ Eccles, R. G., Krzus, M. P., & Ribot, S. (2015). Models of Best Practice in Integrated Reporting 2015. *Journal of Applied Corporate Finance*, 27(2). < <https://econpapers.repec.org/RePEc:bla:jacrfn:v:27:y:2015:i:2:p:103-115>>. Accessed on 30 August 2024

with key stakeholders such as investors, customers, and communities.⁶⁶ Effective ESG reporting frameworks and regulations builds the credibility of institutions hence contributing to their performance.⁶⁷

Additionally, ESG integration is also based on effective stakeholder engagement. Engaging stakeholders is important for companies to become more transparent and accountable in their ESG responses.⁶⁸ For instance, research has shown that in the UK, companies that positively integrate ESG undertake regular consultations.⁶⁹ Feedback mechanisms used in the United Kingdom can be adopted in Kenya to lend greater integrity to its companies when formulating ESG strategies and in the reporting processes.⁷⁰

A comparative view of best practices in the UK has served as practical insight invaluable for corporate Kenya.⁷¹ The UK's focus on detailed ESG reporting,

⁶⁶ Blank, H., Sgambati, G., & Truelson, Z. (2016). Best practices in ESG investing. *The Journal of Investing*, 25(2), 103-112. < <https://quantpioneers.com/wp-content/uploads/2022/03/Best-Practices-in-ESG-Investing.pdf>>. Accessed on 30 August 2024

⁶⁷ *Ibid*

⁶⁸ Nielsen, K. P., & Noergaard, R. W. (2011). CSR and mainstream investing: a new match?—an analysis of the existing ESG integration methods in theory and practice and the way forward. *Journal of Sustainable Finance & Investment*, 1(3-4), 209-221. < <https://econpapers.repec.org/RePEc:taf:jsustf:v:1:y:2011:i:3-4:p:209-221>>. Accessed on 30 August 2024.

⁶⁹ Eccles, R. G., Kastropeli, M. D., & Potter, S. J. (2017). How to integrate ESG into investment decision-making: Results of a global survey of institutional investors. *Journal of Applied Corporate Finance*, 29(4), 125-133. < https://www.researchgate.net/publication/323355047_How_to_Integrate_ESG_into_Investment_Decision-Making_Results_of_a_Global_Survey_of_Institutional_Investors>. Accessed on 30 August 2024.

⁷⁰ *Ibid*

⁷¹ de Souza, L. M. (2024). Benchmarking of National ESG Banking. *Sustainable Finances and the Law: Between Public and Private Solutions*, 16, 27. < https://www.researchgate.net/publication/379627896_Benchmarking_of_National_ESG>

enhanced stakeholder engagement, and alignment with international ESG standards provides a model for enhanced ESG integration.⁷² For instance, with experiences the UK has had with ESG disclosure requirements and best practices, it will mold the way for Kenyan companies in the drafting of more comprehensive ESG policies and reporting frameworks.⁷³ Kenyan corporations could, therefore, better engage with improving their ESGs performance by emulating global best practice.

To improve ESG integration, Kenyan companies should consider adopting best practices from international jurisdictions and tailoring them to local contexts.⁷⁴ Developing clear ESG policies, investing in monitoring and reporting systems, and engaging with stakeholders are essential steps for effective ESG integration.⁷⁵ By following these best practices, Kenyan companies can enhance their ESG performance and align with global standards, contributing to long-term sustainability and responsible business practices.⁷⁶

[G_Banking_Regulations_State_of_Art_and_Remaining_Challenges](#)>. Accessed on 30 August 2024.

⁷² Moessa de Souza, L. (2024). Benchmarking of National ESG Banking Regulations: State of Art and Remaining Challenges. *Sustainable Finances and the Law: Between Public and Private Solutions*, 27-61. < <https://www.springerprofessional.de/en/benchmarking-of-national-esg-banking-regulations-state-of-art-an/26951196>>. Accessed on 30 August 2024.

⁷³ *Ibid*

⁷⁴ Maama, H., & Marimuthu, F. (2022). Integrated reporting and cost of capital in sub-Saharan African countries. *Journal of Applied Accounting Research*, 23(2), 381-401. <<https://ideas.repec.org/a/eme/jaarpp/jaar-10-2020-0214.html>>. Accessed on 30 August 2024

⁷⁵ Manini, M. M. (2023). Sustainable Development Goals Disclosure among Top 25 Listed Companies in Kenya. *Journal of Economics, Finance and Accounting Studies*, 5(4), 40-53. < <https://al-kindipublisher.com/index.php/jefas/article/view/5817>>. Accessed on 30 August 2024.

⁷⁶ *Ibid*

6. Future Trends and Recommendations for ESG Governance

Looking ahead, several trends are likely to shape the future of ESG governance.⁷⁷ Among these is an emerging trend for increased focus on climate risk management.⁷⁸ With increased concern for climate change, both companies and investors are putting more emphasis on managing those climate-related risks and opportunities.⁷⁹ Trended further is the identification of the financial and operational impacts of climate change that many businesses overlook.⁸⁰

Another trend is toward the integration of human rights considerations into ESG practices.⁸¹ Companies are under increasing expectations to take up human rights issues, such as labor practices, diversity, and community impact, in their ESG strategy.⁸² The trend is consistent with a shift in the perception of what social considerations are in corporate responsibility and that business entities must

⁷⁷ Dathe, T., Helmold, M., Dathe, R., & Dathe, I. (2024). Outlook to ESG Future Trends. In *Implementing Environmental, Social and Governance (ESG) Principles for Sustainable Businesses: A Practical Guide in Sustainability Management* (pp. 227-233). Cham: Springer International Publishing. < <https://www.springerprofessional.de/en/implementing-environmental-social-and-governance-esg-principles-/26878470>>. Accessed on 30 August 2024.

⁷⁸ Li, T. T., Wang, K., Sueyoshi, T., & Wang, D. D. (2021). ESG: Research progress and future prospects. *Sustainability*, 13(21), 11663. < https://www.researchgate.net/publication/355514653_ESG_Research_Progress_and_Future_Propects>. Accessed on 30 August 2024.

⁷⁹ Au, A. K. M., Yang, Y. F., Wang, H., Chen, R. H., & Zheng, L. J. (2023). Mapping the Landscape of ESG Strategies: A Bibliometric Review and Recommendations for Future Research. *Sustainability*, 15(24), 16592. < <https://ideas.repec.org/a/gam/jsusta/v15y2023i24p16592-d1294934.html>>. Accessed on 30 August 2024.

⁸⁰ *Ibid*

⁸¹ Li, T. T., Wang, K., Sueyoshi, T., & Wang, D. D. (2021). ESG: Research progress and prospects. *Sustainability*, 13(21), 11663. < <https://www.mdpi.com/2071-1050/13/21/11663>>. Accessed on 30 Aug. 2024

⁸² *Ibid*

respect and promote human rights.⁸³ The UK experience in undertaking human rights due diligence, for instance, provides valuable lessons for Kenyan companies in developing comprehensive human rights policies and practices.⁸⁴ Improvements in ESG reporting technologies are also steering the future of ESG governance.⁸⁵ Developments in data collection, analysis, and reporting are becoming more accurate and transparent.⁸⁶ Therefore, companies can make use of these technologies to update and advance their ESG reporting practices to bring out more detailed and reliable information to the stakeholders.⁸⁷ Companies in Kenya can take advantage of this trend and develop digital platforms and tools in the ESG reporting processes as a way of enhancement for more transparency advocating.⁸⁸

Building ESG in Kenyan corporations calls for the development of clear and

⁸³ Rumyantseva, A., & Tarutko, O. (2022, November). Impact of the ESG principles on the corporate financial strategy. In *Challenges and Solutions in the Digital Economy and Finance: Proceedings of the 5th International Scientific Conference on Digital Economy and Finances (DEFIN 2022), St. Petersburg 2022* (pp. 309-318). Cham: Springer International Publishing. < https://ideas.repec.org/h/spr/prbchp/978-3-031-14410-3_32.html>. Accessed on 30 August 2024

⁸⁴ Ndung'u, D. T., & Onyuma, S. O. (2023). Emerging Environmental, Social and Corporate Governance Reporting by Listed Companies in the Post-CoronaPandemic in Kenya. *LAIKIPIA UNIVERSITY JOURNAL OF SOCIAL SCIENCES, EDUCATION AND HUMANITIES*, 1(1). < <http://journals.laikipia.ac.ke/index.php/jsseh/article/view/23>>. Accessed on 30 August 2024

⁸⁵ Egorova, A. A., Grishunin, S. V., & Karminsky, A. M. (2022). The Impact of ESG factors on the performance of Information Technology Companies. *Procedia Computer Science*, 199, 339-345. <<https://www.sciencedirect.com/science/article/pii/S1877050922000412>>. Accessed on 30 August 2024

⁸⁶ *Ibid*

⁸⁷ Hughes, A., Urban, M. A., & Wójcik, D. (2021). Alternative ESG ratings: How technological innovation is reshaping sustainable investment. *Sustainability*, 13(6), 3551. < <https://www.mdpi.com/2071-1050/13/6/3551>>. Accessed on 30 August 2024.

⁸⁸ *Ibid*

comprehensive ESG policies, investment in building capacities, and fostering collaboration with regulatory bodies and stakeholders.⁸⁹ In addition, these ESG strategies should draw on best practices from leading jurisdictions, including the UK, to begin guiding the development of ESG strategies and reporting in Kenyan grown corporations.⁹⁰ This is to equip such companies to navigate challenges related to the adoption of ESG best practices across different regulatory and operational environments around the world.⁹¹

Legal reforms and policy adjustments are also at the forefront of developing ESG integration into Kenyan policy frameworks and strategies.⁹² Policymakers should support the alignment of Kenyan regulations with international standards in ESG, improve enforcement, and support businesses in the actualization of ESG practices.⁹³ These shall further create an enabling environment for ESG integration and realization of long-term sustainability.⁹⁴ With such sets of recommendations, the companies in Kenya can institute worthwhile changes in ESG governance, and the regulators can help to establish a more sustainable and fair future.⁹⁵

⁸⁹ Eskantar, M., Zopounidis, C., Doumpos, M., Galariotis, E., & Guesmi, K. (2024). Navigating ESG complexity: An in-depth analysis of sustainability criteria, frameworks, and impact assessment. *International Review of Financial Analysis*, 103380. < <https://www.sciencedirect.com/science/article/abs/pii/S1057521924003120>>. Accessed on 30 August 2024.

⁹⁰ *Ibid*

⁹¹ *Ibid*

⁹² Arvidsson, S., & Dumay, J. (2022). Corporate ESG reporting quantity, quality and performance: Where to now for environmental policy and practice?. *Business strategy and the environment*, 31(3), 1091-1110. < <https://onlinelibrary.wiley.com/doi/full/10.1002/bse.2937>>. Accessed on 30 August 2024

⁹³ Finger, M., & Rosenboim, M. (2022). Going ESG: The economic value of adopting an ESG policy. *Sustainability*, 14(21), 13917. < <https://www.mdpi.com/2071-1050/14/21/13917>>. Accessed on 30 August 2024

⁹⁴ *Ibid*

⁹⁵ Eskantar, M., Zopounidis, C., Doumpos, M., Galariotis, E., & Guesmi, K. (2024). Navigating ESG complexity: An in-depth analysis of sustainability criteria, frameworks,

7. Conclusion

The integration of ESG into corporate governance represents a critical shift towards more sustainable and ethical business practices. As the global focus on ESG factors intensifies, Kenya must continually align its regulatory framework with international standards. By addressing challenges, adopting best practices, and supporting ongoing legal and policy reforms, Kenyan companies can enhance their ESG integration efforts and contribute to a more sustainable future. The future of ESG governance in Kenya depends on a collective commitment to sustainability, transparency, and responsible business practices, paving the way for long-term success and positive impact.

List of Reference

About, A., Saleh, A., & Eliwa, Y. (2024). Does mandating ESG reporting reduce ESG decoupling? Evidence from the European Union's Directive 2014/95. *Business Strategy and the Environment*, 33(2), 1305-1320. <https://onlinelibrary.wiley.com/doi/10.1002/bse.3543>.

Agutu, O. J., & Githira, W. C. (2023). Sustainability reporting and financial performance of listed financial firms in Kenya. *Journal of Accounting, Business and Finance Research*, 17(1), 31-42. <https://scipg.com/index.php/102/article/view/704>.

Annesi, N., Battaglia, M., Ceglia, I. and Mercuri, F. (2024), "Navigating paradoxes: building a sustainable strategy for an integrated ESG corporate governance", *Management Decision*, Vol. ahead-of-print No. ahead-of-print. <<https://doi.org/10.1108/MD-10-2023-2006>>

Arvidsson, S., & Dumay, J. (2022). Corporate ESG reporting quantity, quality and performance: Where to now for environmental policy and practice?. *Business strategy and the environment*, 31(3), 1091-1110. <<https://onlinelibrary.wiley.com/doi/full/10.1002/bse.2937>>.

Au, A. K. M., Yang, Y. F., Wang, H., Chen, R. H., & Zheng, L. J. (2023). Mapping the Landscape of ESG Strategies: A Bibliometric Review and Recommendations for Future Research. *Sustainability*, 15(24), 16592. <<https://ideas.repec.org/a/gam/jsusta/v15y2023i24p16592-d1294934.html>>.

Blank, H., Sgambati, G., & Truelson, Z. (2016). Best practices in ESG investing. *The Journal of Investing*, 25(2), 103-112. <<https://quantpioneers.com/wp-content/uploads/2022/03/Best-Practices-in-ESG-Investing.pdf>>.

Integrating Environmental Social & Governance (ESG) (2024) Journal of cmsd Volume 11(5)
Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices:
Murithi Antony & Chepkoech Charity

Bowmans; “Kenya: Nairobi Securities Exchange Published ESG Disclosures Manual” available at < [Câmara, P. \(2022\). The systemic interaction between corporate governance and ESG. In *The Palgrave handbook of ESG and corporate governance* \(pp. 3-40\). Cham: Springer International Publishing. < \[https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4474337\]\(https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4474337\)>.](https://bowmanslaw.com/insights/kenya-nairobi-securities-exchange-published-esg-disclosures-manual/#:~:text=The%20demand%20for%20ESG%20information,the%20end%20of%20November%202021.></p></div><div data-bbox=)

Companies Act. (2006). *Companies Act 2006, c. 46*. Retrieved from <https://www.legislation.gov.uk>

Cox, A. (2015). Fit-for-purpose and effective environment, social and governance (ESG) management: ESG implementation challenges, concepts, methods and tips for improvement. *Responsible Investment Banking: Risk Management Frameworks, Sustainable Financial Innovation and Softlaw Standards*, 43-58.

Crifo, Patricia, et al. “Corporate Governance as a Key Driver of Corporate Sustainability in France: The Role of Board Members and Investor Relations.” *Journal of Business Ethics*, vol. 159, no. 4, 2019, pp. 1127–46. JSTOR, <http://www.jstor.org/stable/45219475>.

Cundill, G., & Wilson, H. (2020). ESG. *A framework for corporate governance and its environmental, social, and financial outcomes. Academy of Management Proceedings*, 18896. < https://www.researchgate.net/publication/343373214_ESG_A_Framework_for_Corporate_Governance_and_its_Environmental_Social_and_Financial_Outcomes.

Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices: (2024) *Journal of cmsd Volume 11(5)*
Murithi Antony & Chepkoech Charity

Dathe, T., Helmold, M., Dathe, R., & Dathe, I. (2024). Outlook to ESG Future Trends. In *Implementing Environmental, Social and Governance (ESG) Principles for Sustainable Businesses: A Practical Guide in Sustainability Management* (pp. 227-233). Cham: Springer International Publishing. <<https://www.springerprofessional.de/en/implementing-environmental-social-and-governance-esg-principles-/26878470>>.

de Souza, L. M. (2024). Benchmarking of National ESG Banking. *Sustainable Finances and the Law: Between Public and Private Solutions*, 16, 27. <https://www.researchgate.net/publication/379627896_Benchmarking_of_National_ESG_Banking_Regulations_State_of_Art_and_Remaining_Challenges>.

Dicuonzo, G., Donofrio, F., Iannuzzi, A. P., & Dell'Atti, V. (2022). The integration of sustainability in corporate governance systems: an innovative framework applied to the European systematically important banks. *International Journal of Disclosure and Governance*, 19(3), 249-263. <<https://link.springer.com/article/10.1057/s41310-021-00140-2>>.

Eccles, R. G., Krzus, M. P., & Ribot, S. (2015). Models of Best Practice in Integrated Reporting 2015. *Journal of Applied Corporate Finance*, 27(2). <<https://econpapers.repec.org/RePEc:bla:jacrfn:v:27:y:2015:i:2:p:103-115>>.

Egorova, A. A., Grishunin, S. V., & Karminsky, A. M. (2022). The Impact of ESG factors on the performance of Information Technology Companies. *Procedia Computer Science*, 199, 339-345. <<https://www.sciencedirect.com/science/article/pii/S1877050922000412>>.

Eskantar, M., Zopounidis, C., Doumpos, M., Galariotis, E., & Guesmi, K. (2024). Navigating ESG complexity: An in-depth analysis of sustainability criteria, frameworks, and impact assessment. *International Review of Financial Analysis*, 103380. <<https://www.sciencedirect.com/science/article/abs/pii/S1057521924003120>>.

Integrating Environmental Social & Governance (ESG) (2024) Journal of cmsd Volume 11(5) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices: Murithi Antony & Chepkoech Charity

Finger, M., & Rosenboim, M. (2022). Going ESG: The economic value of adopting an ESG policy. *Sustainability*, 14(21), 13917. < <https://www.mdpi.com/2071-1050/14/21/13917>>.

Gary, S. N. (2019). Best interests in the long term: Fiduciary duties and ESG integration. *U. Colo. L. Rev.*, 90, 731. < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3149856>.

Hoang, T. (2018). The role of the integrated reporting in raising awareness of environmental, social and corporate governance (ESG) performance. In *Stakeholders, governance and responsibility* (pp. 47-69). Emerald Publishing Limited. https://www.researchgate.net/publication/327349334_The_Role_of_the_Integrated_Reporting_in_Raising_Awareness_of_Environmental_Social_and_Corporate_Governance_ESG_Performance.

Hughes, A., Urban, M. A., & Wójcik, D. (2021). Alternative ESG ratings: How technological innovation is reshaping sustainable investment. *Sustainability*, 13(6), 3551. < <https://www.mdpi.com/2071-1050/13/6/3551>>.

Kilusi, P., & Muigua, K. Attaining Environmental Sustainability in Kenya: Challenges and Prospects. < <http://kmco.co.ke/wp-content/uploads/2018/08/FOOD-SECURITY-AND-ENVIRONMENTAL-SUSTAINABILITY-IN-KENYA.pdf>>.

Karwowski, M., & Raulinajtys-Grzybek, M. (2021). The application of corporate social responsibility (CSR) actions for mitigation of environmental, social, corporate governance (ESG) and reputational risk in integrated reports. *Corporate Social Responsibility and Environmental Management*, 28(4), 1270-1284. < <https://onlinelibrary.wiley.com/doi/abs/10.1002/csr.2137>>

Integrating Environmental Social & Governance (ESG) (2024) Journalofcmsd Volume 11(5) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices: Murithi Antony & Chepkoech Charity

Kim, S., & Li, Z. (2021). Understanding the impact of ESG practices in corporate finance. *Sustainability*, 13(7), 3746. < <https://www.mdpi.com/2071-1050/13/7/3746>>.

Kuznetsova, S. N., Kuznetsov, V. P., Smirnova, Z. V., Andryashina, N. S., & Romanovskaya, E. V. (2024). Corporate Governance in the ESG Context: A New Understanding of Sustainability. In *Ecological Footprint of the Modern Economy and the Ways to Reduce It: The Role of Leading Technologies and Responsible Innovations* (pp. 53-57). Cham: Springer Nature Switzerland. < https://www.researchgate.net/publication/378492472_Corporate_Governance_in_the_ESG_Context_A_New_Understanding_of_Sustainability>.

Li, T. T., Wang, K., Sueyoshi, T., & Wang, D. D. (2021). ESG: Research progress and future prospects. *Sustainability*, 13(21), 11663. < https://www.researchgate.net/publication/355514653_ESG_Research_Progress_and_Future_Prospects>.

Low, L. A. (2022). The All Important" G" in ESG and Its Relationship to Good Governance and Corporate Compliance in Anti-Corruption: Towards a More Holistic Approach. *Sw. J. Int'l L.*, 28, 340. < <https://www.swlaw.edu/sites/default/files/2023-05/5%20-%20Low.pdf> >.

Lykkesfeldt, P., & Kjaergaard, L. L. (2022). The new wave of ESG regulatory framework. In *Investor Relations and ESG Reporting in a Regulatory Perspective: A Practical Guide for Financial Market Participants* (pp. 127-136). Cham: Springer International Publishing. < https://ideas.repec.org/h/spr/sprchp/978-3-031-05800-4_16.html>.

Maama, H., & Marimuthu, F. (2022). Integrated reporting and cost of capital in sub-Saharan African countries. *Journal of Applied Accounting Research*, 23(2), 381-401. <<https://ideas.repec.org/a/eme/jaarpp/jaar-10-2020-0214.html>>.

Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices: (2024) *Journal of CMSD Volume 11(5)*
Murithi Antony & Chepkoech Charity

Mabiru, C. (2015). Capital Markets Act in Kenya: Deregulation of the Financial Services Sector and Consequence on Consumer Protection. Available at SSRN 2765939. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2765939.

Manini, M. M. (2023). Sustainable Development Goals Disclosure among Top 25 Listed Companies in Kenya. *Journal of Economics, Finance and Accounting Studies*, 5(4), 40-53. <<https://al-kindipublisher.com/index.php/jefas/article/view/5817>>.

Maroun, W. (2022). Corporate governance and the use of external assurance for integrated reports. *Corporate Governance: An International Review*, 30(5), 584-607. <<https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12430>>.

Mgbame, C. O., Aderin, A., Ohalehi, P., & Chijoke-Mgbame, A. M. (2020). Achieving sustainability through environmental social governance reporting: overcoming the challenges. In *Environmentalism and NGO accountability* (Vol. 9, pp. 9-25). Emerald Publishing Limited. <https://www.researchgate.net/publication/346878722_Achieving_Sustainability_through_Environmental_Social_Governance_Reporting_Overcoming_the_Challenges>.

Moessa de Souza, L. (2024). Benchmarking of National ESG Banking Regulations: State of Art and Remaining Challenges. *Sustainable Finances and the Law: Between Public and Private Solutions*, 27-61. <<https://www.springerprofessional.de/en/benchmarking-of-national-esg-banking-regulations-state-of-art-an/26951196>>.

Muigua, K. (2023). Embracing Sustainability Audit for Enhanced Corporate Environmental Compliance in Kenya. <<http://kmco.co.ke/wp-content/uploads/2023/06/Embracing-Sustainability-Audit-for-Enhanced-Corporate-Environmental-Compliance-in-Kenya-Kariuki-Muigua.pdf>>.

Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices: (2024) *Journalofcmsd Volume 11(5)*
Murithi Antony & Chepkoech Charity

Muigua, K. *Embracing Environmental, Social and Governance (ESG) Principles for Sustainable Development in Kenya.* ((2022) *Journalofcmsd Volume 9(2)*). available at <<https://journalofcmsd.net/wp-content/uploads/2022/10/Embracing-Environmental-Social-and-Governance-ESG-Principles-for-Sustainable-Development-in-Kenya.pdf>>

Ndung'u, D. T., & Onyuma, S. O. (2023). Emerging Environmental, Social and Corporate Governance Reporting by Listed Companies in the Post-CoronaPandemic in Kenya. *LAIKIPIA UNIVERSITY JOURNAL OF SOCIAL SCIENCES, EDUCATION AND HUMANITIES*, 1(1). <<http://journals.laikipia.ac.ke/index.php/jsseh/article/view/23>>.

Neri, S. (2021). Environmental, social and governance (ESG) and integrated reporting. *Global Challenges to CSR and Sustainable Development: Root Causes and Evidence from Case Studies*, 293-302. <https://ideas.repec.org/h/spr/csrchp/978-3-030-62501-6_14.html>.

Nielsen, K. P., & Noergaard, R. W. (2011). CSR and mainstream investing: a new match?—an analysis of the existing ESG integration methods in theory and practice and the way forward. *Journal of Sustainable Finance & Investment*, 1(3-4), 209-221. <<https://econpapers.repec.org/RePEc:taf:jsustf:v:1:y:2011:i:3-4:p:209-221>>.

Pollman, E. (2019). Corporate social responsibility, ESG, and compliance. *Forthcoming, Cambridge Handbook of Compliance* (D. Daniel Sokol & Benjamin van Rooij eds.), Loyola Law School, Los Angeles Legal Studies Research Paper, (2019-35). <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3479723>.

Ramadhani, D. (2019). Understanding environment, social and governance (ESG) factors as path toward ASEAN sustainable finance. *APMBA (Asia Pacific Management and Business Application)*, 7(3), 147-162. <<https://apmba.ub.ac.id/index.php/apmba/article/download/321/251>>.

Integrating Environmental Social & Governance (ESG) Principles into Corporate Governance in Kenya: Trends, Challenges, and Best Practices: (2024) *Journal of cmsd Volume 11(5)*
Murithi Antony & Chepkoech Charity

Rumyantseva, A., & Tarutko, O. (2022, November). Impact of the ESG principles on the corporate financial strategy. In *Challenges and Solutions in the Digital Economy and Finance: Proceedings of the 5th International Scientific Conference on Digital Economy and Finances (DEFIN 2022), St. Petersburg 2022* (pp. 309-318). Cham: Springer International Publishing. <
https://ideas.repec.org/h/spr/prbchp/978-3-031-14410-3_32.html>.

Savi, A., & Ostrovnyaya, A. (2023). ESG Regulatory Framework for Asset Managers in the EU, UK, US and Singapore: the Role of Social Knowledge and Value Judgement in the Asset Managers ESG Business Strategy. *UK, US and Singapore: the Role of Social Knowledge and Value Judgement in the Asset Managers ESG Business Strategy* (December 17, 2023). <
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4667134>.

Sonko, K. N., & Sonko, M. (2023). ESG: The Way Forward for Stakeholders. In *Demystifying Environmental, Social and Governance (ESG) Charting the ESG Course in Africa* (pp. 267-282). Cham: Springer International Publishing. <
https://ideas.repec.org/h/pal/psifcp/978-3-031-35867-8_8.html>.

Spataro, L., Quirici, M. C., & Iermano, G. (Eds.). (2023). ESG Integration and SRI Strategies in the EU: Challenges and Opportunities for Sustainable Development. <
<https://link.springer.com/book/10.1007/978-3-031-36457-0>>.

Wang, L. (2024). Challenges and Opportunities of ESG Integration in Financial Operations. In *International Conference on Finance and Economics* (Vol. 6, No. 1). <
https://www.researchgate.net/publication/380354078_Challenges_and_Opportunities_of_ESG_Integration_in_Financial_Operations>.

Zenkina, I. (2023). Ensuring the transparency of ESG reporting based on the development of its standardization. In *E3S Web of Conferences* (Vol. 371, p. 05077). EDP Sciences. <https://www.e3s->

Integrating Environmental Social & Governance (ESG) (2024) Journalofcmsd Volume 11(5)
Principles into Corporate Governance in Kenya: Trends,
Challenges, and Best Practices:
Murithi Antony & Chepkoech Charity

conferences.org/articles/e3sconf/abs/2023/08/e3sconf_afe2023_05077/e3sconf_afe2023_05077.html.

Problematic Overlaps and Duplication of Mandates of State and Governmental Agencies in Kenya: Proposals for Legal and Institutional Reform

*By: Michael Sang **

Abstract

This paper examines the pervasive issue of overlapping and duplicative mandates among state and governmental agencies in Kenya, highlighting how these inefficiencies hamper public service delivery and waste public resources. By exploring case studies such as conflicts between the Ethics and Anti-Corruption Commission (EACC) and the Directorate of Criminal Investigations (DCI), and the regulatory overlaps involving the Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB) and the Pharmacy and Poisons Board (PPB), the paper underscores the adverse consequences of such duplicity. The study proposes comprehensive legal and institutional reforms to rationalize agency mandates, promote policy coherence, and enhance inter-agency cooperation. It advocates for the adoption of clear legislation, continuous monitoring by the Kenya Law Reform Commission, and capacity building for public officers, drawing lessons from international best practices to streamline Kenya's public sector.

Keywords: *Overlapping Mandates; Public Service Efficiency; Institutional Reform; Duplication of Mandates, State Agencies, Legal Reform*

1. Introduction

The effectiveness of public service delivery in Kenya is critically undermined by overlapping and duplicative mandates among state and governmental agencies.¹ This issue manifests through the duplicity of roles and responsibilities, leading

** LLM, University of Cape Town, South Africa; LLB, Moi University; PG Dip. in Law Kenya School of Law. The views expressed in this article are, of course, the authors' own and do not express the views of the institution to which he is affiliated.*

¹ Alfred Ong'era & Beverly Muthoki Musili 'Public Sector Reforms in Kenya: Challenges and Opportunities' *Kenya Institute for Public Policy Research and Analysis (KIPPRRA) Working Paper No. 29 2019*

to collisions, collusion, and inefficiencies that not only affect the quality of service delivery but also result in significant wastage of public resources.² The very taxpayers purportedly protected by the establishment of these institutions bear the financial burden of such inefficiencies.³

Instances of duplicity in roles create conflicts between agencies, as seen in various sectors, including corruption-related investigations, policing, counterfeiting, and public debt management.⁴ For example, the conflict between the Ethics and Anti-Corruption Commission (EACC) and the Directorate of Criminal Investigations (DCI) Economic and Corporate Crime Unit⁵ highlights how overlapping mandates can lead to incoherent policies and inter-agency conflicts, ultimately wasting public resources and misdirecting institutional efforts. The overlapping mandates between EACC and DCI create confusion, as both agencies often launch separate investigations into the same corruption cases, leading to inconsistencies and delays. This duplication of efforts results in significant wastage of public funds and reduces overall effectiveness. Instead of complementing each other, the two institutions' concurrent roles in investigating economic crimes cause inefficiency and misdirection in addressing corruption issues. Similarly, the overlapping functions between the Independent Policing Oversight Authority (IPOA), the DCI, and the Internal Affairs Unit (IAU) of the National Police Service illustrate the inefficiencies and redundancies caused by unclear delineation of responsibilities.⁶

The problematic consequences of these overlaps are multifaceted. They include the duplication of functions, fragmentation of public authority, inefficiency of implementation, and wastage of public resources.⁷ For instance, the recent court

² Ibid

³ Ibid

⁴ Ibid

⁵ Daud, Y. M. (2024). A Review of Effectiveness of Anti-Corruption Strategies and Institutions in Kenya. *African Journal of Commercial Studies*, 4(4), 303-318.

⁶ Ibid

⁷ Ibid

ruling in ELRC Petition No. E006/2023, *KMPDU v. SRC, PSC, CoG, and 47 Counties*, underscored the unconstitutional nature of the SRC's attempt to abolish the non-practice allowance, demonstrating the need for clear legislative boundaries to prevent overreach and ensure effective governance. This will be discussed later in detail.

To address these challenges, this paper proposes comprehensive legal and institutional reforms aimed at rationalizing the mandates and functions of state and governmental agencies. This includes the adoption of legislation to govern operational conflicts and promote policy coherence, the development of efficient coordination mechanisms for cross-agency priorities, continuous monitoring and early intervention by the Kenya Law Reform Commission, and the training and capacity building of public officers to enhance operational flexibility and inter-agency cooperation. Drawing lessons from successful international examples, such as the United States' Consolidating and Reforming Government Act of 2012, the paper underscores the importance of clear, well-defined roles and responsibilities in enhancing the efficiency and effectiveness of Kenya's public sector.

2. Public Sector Governance and the Necessity of Distinct Institutional Mandates

2.1 Efficient Division of Labour

An efficient division of labour ensures that each agency focuses on its core functions, enhancing specialization and expertise. Clear mandates prevent redundancy and enable agencies to build capacity in their specific areas, leading to better service delivery.⁸

2.2 Clarity of Functions

Clarity of functions allows agencies to operate with a clear understanding of their roles, responsibilities, and boundaries. This minimizes the risk of encroachment

⁸ Ibid

on other agencies' duties, ensuring smooth and coordinated public service delivery.⁹

2.3 Adverse Effects of Overlapping and Duplicative Mandates Incoherence of Policies and Directives and Confusion When Implementing Them

Overlapping mandates lead to conflicting policies and directives, creating confusion among public servants and the public. This incoherence hampers effective implementation and undermines the credibility of governmental initiatives.¹⁰

Inter-Agency Conflicts

Agencies with overlapping functions often engage in turf wars, leading to conflicts that disrupt collaboration and cooperation. These conflicts waste time and resources that could be better utilized in serving the public.¹¹

Wastage of Public Resources

Duplicative mandates result in multiple agencies performing the same tasks, leading to unnecessary expenditure and resource wastage. This inefficiency burdens the exchequer and, ultimately, the taxpayers.¹²

Misdirection and Duplication of Institutional Effort

When multiple agencies undertake similar initiatives, efforts are duplicated, and institutional focus is diluted. This misdirection leads to fragmented efforts that fail to achieve the desired impact.¹³

Inefficiency and Redundancy

The existence of overlapping mandates breeds inefficiency and redundancy

⁹ Ibid

¹⁰ The Commonwealth (2016), *Key Principles of Public Sector Reforms; Case Studies and Frameworks*.

¹¹ Ibid

¹² Ibid

¹³ Ibid

within the public sector. Resources are spread thin across various agencies, reducing their effectiveness and the overall efficiency of public service delivery.¹⁴

3. The Problem of Overlapping and Duplicative Mandates of State and Governmental Agencies in Kenya: Examples and Consequences

3.1 Corruption-related Investigations

3.1.1 Conflict between EACC and DCI Economic and Corporate Crime Unit Ethics and Anti-Corruption Commission (EACC)

Section 3(1) of the EACC Act establishes the Ethics and Anti-Corruption Commission (EACC). This sets up a dedicated body specifically aimed at combating corruption.¹⁵ Section 11(1) details the functions of the EACC, including developing standards in integrity and anti-corruption,¹⁶ investigating and recommending prosecutions of corruption and economic crimes,¹⁷ and monitoring public bodies to detect corrupt practices.¹⁸ Section 13(2) (c) further empowers the EACC to conduct investigations on its own initiative or upon complaint.

Directorate of Criminal Investigations (DCI) Economic and Corporate Crime Unit Mandate

The DCI, under the National Police Service Act, is tasked with investigating serious crimes, including economic crimes and corruption.¹⁹ The DCI collects criminal intelligence and conducts forensic analysis, supporting prosecutions as directed by the DPP.

¹⁴ Ibid

¹⁵ Ethics and Anti-Corruption Commission Act, section 3 (1)

¹⁶ Ibid, Section 11(1)(a)(i)

¹⁷ Ibid, Section 11(1)(d)

¹⁸ Ibid, Section 11(1)(i)

¹⁹ National Police Service Act, section 35

Problematic Consequences

The overlapping mandates between EACC and DCI lead to conflicting policies and directives, creating confusion during implementation.²⁰ For example, both agencies may initiate separate investigations into the same case, leading to inconsistencies and delays in resolving corruption issues. Jurisdictional overlaps often result in turf wars between the EACC and DCI, as both agencies assert their authority over corruption-related investigations.²¹ This can be particularly problematic when both agencies have concurrent mandates to investigate economic crimes, as per Section 11(1)(d) of the EACC Act and Section 35 of the National Police Service Act.

Duplication of efforts leads to significant wastage of public funds.²² Both the EACC and DCI allocate resources to investigate and prosecute the same corruption cases, which is an inefficient use of taxpayer money.²³ Efforts by the EACC and DCI are often duplicated, leading to misdirection. Instead of complementing each other, their overlapping mandates cause both institutions to expend resources on similar tasks, reducing overall effectiveness.²⁴ The redundancy created by overlapping functions leads to inefficiency within the public sector. Resources are spread thin as both the EACC and DCI independently pursue similar corruption cases, diminishing their collective capacity to effectively address these issues.

²⁰ Daud, Y. M. (2024). A Review of Effectiveness of Anti-Corruption Strategies and Institutions in Kenya. *African Journal of Commercial Studies*, 4(4), 303-318.

²¹ Ibid

²² Ibid

²³ Ibid

²⁴ Ibid

3.2 Police Excesses

3.2.1 Conflict between IPOA, DCI, and Internal Affairs Unit of National Police Service Directorate of Criminal Investigations (DCI)

The DCI is responsible for:

Collecting and providing criminal intelligence; Investigating serious crimes such as homicide, narcotics, human trafficking, money laundering, terrorism, economic crimes, piracy, organized crime, and cybercrime; Maintaining law and order; Detecting and preventing crime; Apprehending offenders; Maintaining criminal records; Conducting forensic analysis; Executing directions from the Inspector-General given by the Director of Public Prosecutions; Coordinating Interpol affairs; Investigating matters referred by the Independent Policing Oversight Authority (IPOA).²⁵

Internal Affairs Unit (IAU)

The IAU is tasked with: Receiving and investigating complaints against police officers; promoting uniform standards of discipline and good order in the police service and; Keeping records of complaints and investigations.²⁶

Independent Policing Oversight Authority (IPOA)

The IPOA's responsibilities include: Investigating complaints related to disciplinary or criminal offences by police officers, either on its own motion or upon receipt of a complaint, and making recommendations for prosecution, compensation, internal disciplinary action, or other relief; Receiving and investigating complaints by police officers and; Monitoring, reviewing, and auditing investigations and actions taken by the Internal Affairs Unit in response to complaints against police officers.²⁷ The IPOA can recommend prosecutions to the Director of Public Prosecutions and take over internal investigations if they

²⁵ National Police Service Act, section 35

²⁶ Ibid, section 87

²⁷ Independent Policing Oversight Authority Act, section 6

are inordinately delayed or unreasonable.²⁸

3.2.2 Problematic Consequences

The overlapping mandates of IPOA, DCI, and IAU lead to conflicting policies and directives.²⁹ For instance, both IPOA and IAU can initiate investigations into police misconduct, leading to confusion and inconsistent outcomes. Jurisdictional overlaps cause conflicts among IPOA, DCI, and IAU. This is especially evident when IPOA takes over ongoing investigations from the IAU due to delays or perceived inefficiency, leading to tension and lack of cooperation.³⁰ The duplication of efforts by IPOA, DCI, and IAU results in wastage of resources. Multiple agencies investigating the same incidents lead to unnecessary expenditure and inefficiency.³¹

Efforts are duplicated when IPOA and IAU conduct parallel investigations into the same cases of police misconduct. This misdirection of institutional effort reduces the overall effectiveness of policing oversight. The redundancy created by overlapping functions leads to inefficiency within the police oversight system. Resources are spread thin, reducing the capacity of each agency to effectively address police misconduct and excesses.

Conflict and Mandate Overreach

The Law Society of Kenya (LSK) issued a press statement regarding the establishment of a Presidential Taskforce on Forensic Audit of Public Debt, as outlined in Gazette Notice No. 8261 of 2024.³² The LSK argued that this taskforce is unconstitutional, emphasizing that the mandate to audit public debt lies with

²⁸ Ibid, section 7

²⁹ Omondi, M. (2021). *Asset Recovery in Corruption Cases: Towards a More Efficient Legal Framework for Recovering Assets* (Doctoral dissertation, University of Nairobi).

³⁰ Ibid

³¹ Ibid

³² Law Society of Kenya (LSK) press statement on the establishment of a Presidential Taskforce on Forensic Audit of Public Debt, as outlined in Gazette Notice No. 8261 of 2024.

the Auditor-General, as per Articles 226 and 229 of the Constitution of Kenya.³³ Article 229 of the Constitution mandates the Auditor-General to audit public debt within six months after the end of each financial year. This includes auditing the accounts of national and county governments, courts, commissions, independent offices, political parties funded from public funds, and any other entities required by legislation.³⁴

The press statement referenced a High Court ruling in the case of *Ondago v Natembeya & 15 others*,³⁵ which underscored the exclusive role of the Auditor-General in public audit matters. The court nullified a taskforce created to audit county government debts, asserting that such audits should be conducted by the Auditor-General upon request. The LSK resolved that neither its president nor its members will participate in the taskforce. They advised the President to allow the Auditor-General to perform her constitutional duties and refrain from creating parallel structures that usurp established constitutional roles. The LSK also highlighted the role of the Office on Public Debt Management, which should support the Auditor-General with necessary information for forensic audits.³⁶ This highlights issues of mandate overreach and conflicts similar to those between IPOA, DCI, and IAU, leading to inefficiencies and conflicts among law enforcement agencies. The press statement underscores the importance of respecting constitutional mandates to prevent wastage of public funds and ensure efficient governance.

³³ Ibid

³⁴ Constitution of Kenya, 2010, art 229

³⁵ *Ondago v Natembeya & 15 others* [2023] KEHC 22268 (19 September 2023)

³⁶ Law Society of Kenya (LSK) press statement on the establishment of a Presidential Taskforce on Forensic Audit of Public Debt, as outlined in Gazette Notice No. 8261 of 2024.

3.3 War on Counterfeits, Uncustomed Goods, and Tax Evasion

3.3.1 Conflict between Anti-Counterfeit Authority, Kenya Revenue Authority (KRA), DCI, and KEBS

Anti-Counterfeit Authority (ACA)

The ACA is tasked with: Enlightening and informing the public on matters relating to counterfeiting; Combating counterfeiting and trade in counterfeit goods; Coordinating with organizations involved in combating counterfeiting; Advising the government on policies and measures for intellectual property protection and; conducting inquiries, studies, and research on counterfeiting.³⁷

Kenya Bureau of Standards (KEBS)

KEBS is responsible for: Promoting standardization in industry and commerce; providing facilities for testing and calibration of precision instruments; Examining and testing commodities; Controlling the use of standardization marks and; Encouraging educational work related to standardization.³⁸

Kenya Revenue Authority (KRA)

KRA's functions include: Collecting and receiving all government revenue; Administering and enforcing revenue laws and; Advising the government on revenue matters.³⁹

In *Chen v R*,⁴⁰ the appellant, Chen Xiangzhong, was initially convicted by the Milimani Chief Magistrate's Court for possession of counterfeit goods under the Anti-Counterfeit Act. He was sentenced to a fine of Kshs. 292,222,560 or, in default, two years imprisonment. On appeal, the High Court reduced the fine to Kshs. 10,000,000 or, in default, 12 months imprisonment. The High Court found the initial sentencing excessive due to the lack of proper valuation of the

³⁷ Anti-Counterfeit Act, section 5

³⁸ Standards Act, section 4

³⁹ Kenya Revenue Authority Act, section 5

⁴⁰ *Chen vs. R* Criminal Appeal E183 of 2023

counterfeit goods.⁴¹ Specifically, the case highlights the operational challenges and conflicts between agencies such as the Anti-Counterfeit Authority (ACA) and the Kenya Industrial Property Institute (KIPI).

3.3.2 Problematic Consequences

The overlapping mandates of the ACA, KRA, DCI, and KEBS create inconsistencies in policies and directives, leading to confusion during implementation.⁴² For instance, both ACA and DCI may initiate separate investigations into counterfeit goods, resulting in conflicting enforcement actions. The case exemplifies the confusion arising from the overlapping functions of the ACA and KIPI. The appellant's defence hinged on the registration of the GHT trademark, highlighting a potential conflict between ACA's enforcement actions and KIPI's trademark registrations.⁴³ Jurisdictional overlaps result in conflicts among ACA, KRA, DCI, and KEBS. These agencies may compete for authority over counterfeit goods and tax evasion cases, leading to a lack of cooperation and inefficient enforcement.

Duplicative efforts by these agencies lead to wastage of resources. Multiple agencies conducting parallel investigations on the same counterfeit goods or tax evasion cases result in unnecessary expenditure and inefficiencies. Paragraph 24 of the case outlines the efforts to identify and prosecute counterfeit goods, which can be resource-intensive. The duplication of efforts between different agencies in combating counterfeits can lead to inefficient use of public resources.⁴⁴ Efforts are duplicated when ACA and DCI, for example, both investigate counterfeit goods. Similarly, KRA and KEBS may conduct separate inspections for compliance with standards and tax laws, leading to redundant actions and misdirected resources.

⁴¹ Ibid, paragraphs 28-34

⁴² Omondi, M. (2021). *Asset Recovery in Corruption Cases: Towards a More Efficient Legal Framework for Recovering Assets* (Doctoral dissertation, University of Nairobi).

⁴³ *Chen vs. R* Criminal Appeal E183 of 2023, paragraph 23

⁴⁴ Ibid, para 24

The case underscores the need for a thorough review of the Anti-Counterfeit Act and related laws to ensure clear delineation of responsibilities between ACA and KIPI, preventing the kind of confusion and legal battles seen in this appeal.⁴⁵ The judgement illustrates the necessity of legislation that clearly defines the roles of various agencies involved in intellectual property and counterfeiting issues. This can help in avoiding situations where agencies overstep their mandates, as the court found with SRC in the context of non-practice allowances.⁴⁶ The case demonstrates the need for comprehensive training of public officers in understanding and applying the legal frameworks governing counterfeit goods. This could enhance inter-agency cooperation and reduce operational conflicts.

3.4 In-Vitro Diagnostic Systems

3.4.1 Conflict between Pharmacy and Poisons Board, Kenya Medical Laboratory Technicians & Technologists Board, and National Quality Control Laboratory Pharmacy and Poisons Board (PPB)

The PPB is responsible for regulating health products, technologies, and the profession of pharmacy. This includes: Ensuring all medicinal products conform to prescribed standards of quality, safety, and efficacy; Licensing the manufacture, importation, exportation, distribution, and sale of medicinal substances and; conducting post-market surveillance of the safety and quality of medical products.⁴⁷

Kenya Medical Laboratory Technicians & Technologists Board (KMLTTB)

The KMLTTB oversees: Supervising and controlling the training, business, practice, and employment of laboratory technicians and technologists in Kenya; Licensing and regulating the practice of registered laboratory technicians and technologists and; regulating professional conduct and maintaining professional standards.⁴⁸

⁴⁵ Ibid, paragraphs 19-24

⁴⁶ *KMPDU v. SRC, PSC, CoG, and 47 Counties* ELRC Petition No. E006/2023

⁴⁷ Pharmacy and Poisons Act, Section 3B

⁴⁸ Medical Laboratory Technicians and Technologists Act, Section 5

National Quality Control Laboratory (NQCL)

The NQCL is established for: Examining and testing drugs to ensure quality control of drugs and medicinal substances; performing chemical, biological, biochemical, physiological, and pharmacological analysis and; Testing locally manufactured and imported drugs to determine compliance with the Act.⁴⁹

3.4.2 Problematic Consequences

The overlapping mandates of the PPB, KMLTTB, and NQCL create inconsistencies in policies and directives, leading to confusion.⁵⁰ For instance, both PPB and NQCL might engage in post-market surveillance and testing of medical products, resulting in duplicated efforts and potentially conflicting outcomes. Jurisdictional overlaps result in conflicts among PPB, KMLTTB, and NQCL.⁵¹ Each agency might claim authority over certain aspects of in-vitro diagnostic systems, such as the licensing and quality control of medical devices, leading to disputes and lack of cooperation. Duplicative efforts by these agencies lead to wastage of resources. Multiple agencies conducting similar inspections, testing, and licensing processes result in unnecessary expenditure and inefficiencies. Efforts are duplicated when PPB, KMLTTB, and NQCL independently regulate and supervise overlapping areas of in-vitro diagnostic systems. This misdirection of institutional effort reduces the overall effectiveness of regulatory oversight.

In *Republic vs. Zhou Wu Alias William T/A Zonken Medical Supplies Limited*⁵², the accused was charged with stocking and distributing unvalidated laboratory reagents and failing to send samples for validation as required by the Medical Laboratory Technicians and Technologists Act. The prosecution called seven

⁴⁹ Pharmacy and Poisons Act, Section 35D

⁵⁰ Onyango, G. (2024). Social Processes of Public Sector Collaborations in Kenya: Unpacking Challenges of Realising Joint Actions in Public Administration. *Journal of the Knowledge Economy*, 1-31.

⁵¹ Pharmacy and Poisons Act, Section 35D

⁵² *Republic vs. Zhou Wu Alias William T/A Zonken Medical Supplies Limited* Criminal Case No. 1457 of 2020

witnesses, and the defense argued that the accused had obtained necessary validations from the Pharmacy and Poisons Board, not the Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB). The defense presented evidence that the accused had obtained validation from the Pharmacy and Poisons Board and KEMRI, and the accused was not required to seek validation from KMLTTB as he was not a laboratory technologist or technician. The court found that the accused had complied with the validation requirements of the Pharmacy and Poisons Board. The KMLTTB's mandate did not extend to validating the accused's activities since he was not a registered laboratory technologist or technician. The court acquitted the accused on all counts, citing a misinterpretation of KMLTTB's mandate.

The case exemplifies the confusion arising from overlapping regulatory mandates between the Pharmacy and Poisons Board and KMLTTB. There was a clear misinterpretation of which body had the authority to validate medical test kits, leading to the wrongful prosecution of the accused. This case illustrates the operational conflicts and inefficiencies that result from overlapping mandates. The prosecution's reliance on KMLTTB's regulations despite the accused having valid certifications from the Pharmacy and Poisons Board and KEMRI demonstrates a lack of coordination and clarity in regulatory responsibilities. The prosecution of the accused, based on an incorrect interpretation of the regulatory framework, represents a significant waste of public resources. This misdirection of efforts and resources could have been avoided with clear delineation of responsibilities between the relevant agencies.

Pharmacy and Poisons Board v. Wanjala & 7 Others [2021] KECA 348 (KLR)

The case involves an appeal by the Pharmacy and Poisons Board (PPB) against a High Court decision which ruled in favor of the National Quality Control Laboratory (NQCL), stating that NQCL had the mandate to carry out inspections for Good Manufacturing Practices (GMP) and issue compliance certificates.⁵³ The

⁵³ *Pharmacy and Poisons Board v. Wanjala & 7 Others* [2021] KECA 348 (KLR) Civil Appeal No. 211 of 2017

appellant argued that this role belonged to the PPB. The PPB argued that according to Rule 10 of the Pharmacy and Poisons (Registration of Drugs) Rules, it had the mandate to conduct GMP inspections.⁵⁴ The High Court, however, held that NQCL should carry out these inspections based on the functions outlined in sections 35A (5) and 35I (b) of the Pharmacy and Poisons Act.

The judgment highlighted that, subsequent amendments to the Pharmacy and Poisons Act clarified the mandate. Section 34 of the Clinical Officers (Training, Registration, and Licensing) Act, 2017, vested GMP inspection and compliance responsibilities solely with the PPB.⁵⁵ This rendered the conflict moot and aligned the legal framework with the PPB's position. The court concluded that the NQCL was intended to function as a support facility under the PPB, rather than an independent regulatory body. This was emphasized in paragraph 61, where the court interpreted the legislative intent to keep NQCL subordinate to the PPB for tasks such as sampling and testing of medicinal substances.⁵⁶

The case illustrates the confusion arising from overlapping regulatory mandates between the PPB and NQCL. As seen in paragraph 10, the conflicting circular from the Ministry of Health further complicated the regulatory environment. The legal tussle between PPB and NQCL highlights the operational conflicts and inefficiencies resulting from unclear mandates. Paragraph 59 outlines the fundamental disagreement on who should conduct GMP inspections, showcasing the inter-agency friction. The prolonged legal dispute and duplicated efforts between PPB and NQCL represent a significant waste of resources. The amendments clarified the roles, but the initial conflict led to unnecessary expenditure and inefficiencies. The case underscores the importance of a detailed legislative review to clarify agency mandates. The amendments to the Pharmacy and Poisons Act were crucial in resolving the mandate overlap.⁵⁷

⁵⁴ Ibid, paragraph 9

⁵⁵ Ibid, paragraphs 49-50

⁵⁶ Ibid, para 61

⁵⁷ Ibid, paragraph 49

3.5 Public Service Governance

3.5.1 Conflict between Salaries and Remuneration Commission (SRC) and Public Service Commission (PSC) Kenya

The conflict between the SRC and PSC revolves around the determination and implementation of remuneration and allowances for public officers. The SRC, established under Article 230(4) of the Constitution, is mandated to set and regularly review the remuneration and benefits of all state officers and advise the national and county governments on the remuneration of other public officers. This includes proposing adjustments to allowances such as non-practice and car grants for judges and other public service professionals.⁵⁸

On the other hand, the PSC, responsible for the overall human resource management in the public service, asserted that the SRC's mandates should not interfere with the contractual terms agreed upon between the public service and its employees. For example, the PSC opposed the SRC's proposal to abolish the non-practice allowance, which is paid to doctors and lawyers in public service to attract and retain specialized skills. The PSC argued that the SRC does not have the authority to unilaterally alter contractual agreements between employers and employees without due consultation.⁵⁹

KMPDU v. SRC, PSC, CoG, and 47 Counties

On November 17, 2023, Lady Justice Stellah Ruto of the Employment and Labour Relations Court (ELRC) delivered a significant judgment in the case of *KMPDU v. SRC, PSC, CoG, and 47 Counties*. The court declared that the Salaries and Remuneration Commission's (SRC) proposal to abolish the non-practice allowance was unconstitutional.⁶⁰ The court ruled that the SRC acted outside its mandate by attempting to abolish the non-practice allowance. According to the

⁵⁸ Allan Odhiambo (2023) 'PSC rejects proposal to cut out non-practice allowance' *Nation* available at https://nation.africa/kenya/business/psc-rejects-proposal-to-cut-out-non-practice-allowance-4150036#google_vignette accessed 11 July 2024

⁵⁹ Ibid

⁶⁰ *KMPDU v. SRC, PSC, CoG, and 47 Counties* ELRC Petition No. E006/2023

judgment, SRC's role is advisory, particularly regarding terms of service that have been set by the employer or negotiated and agreed upon through collective bargaining processes. Thus, SRC's unilateral decision to abolish the allowance was beyond its authorized powers.⁶¹

Justice Stellah Ruto emphasized that the SRC's actions interfered with the Kenya Medical Practitioners, Pharmacists and Dentists Union's (KMPDU) right to collective bargaining. The non-practice allowance, which is critical for attracting and retaining specialized professionals in public service, was a product of collective bargaining and not subject to unilateral abolition by SRC. The PSC supported KMPDU in the petition, arguing that the non-practice allowance is vital for retaining professionals in public service roles. The PSC maintained that such allowances are negotiated terms of service and should not be altered without proper consultation and agreement.⁶²

This judgment underscores the importance of respecting the collective bargaining process and the defined roles of various public service bodies. It reinforces that any changes to negotiated terms of service should involve all relevant stakeholders to ensure legality and fairness in public sector employment practices.

3.5.2 Problematic Consequences

The overlapping mandates of SRC and PSC lead to conflicting policies and directives.⁶³ This creates confusion during the implementation of remuneration packages and allowances, as seen in the disagreement over the non-practice allowance and car grants for judges.⁶⁴ The jurisdictional overlaps between SRC and PSC often result in conflicts. Each commission may assert its authority over

⁶¹ Ibid

⁶² Ibid

⁶³ Onyango, G. (2024). Social Processes of Public Sector Collaborations in Kenya: Unpacking Challenges of Realising Joint Actions in Public Administration. *Journal of the Knowledge Economy*, 1-31.

⁶⁴ Ibid

remuneration issues, leading to disputes that hamper effective governance.⁶⁵ This is evident in the ongoing court battles over allowances for public officers, where both commissions have opposing views on the legitimacy and sustainability of certain benefits.⁶⁶

Efforts are duplicated when SRC and PSC independently pursue their mandates regarding public service remuneration.⁶⁷ This misdirection of institutional effort reduces their overall effectiveness in managing and regulating public service benefits and allowances.⁶⁸

4. Proposals for Legal and Institutional Reform to Minimize Overlapping and Duplicative Mandates of State and Governmental Agencies in Kenya

4.1 Rationalization of Mandates and Functions of State and Governmental Agencies

A comprehensive assessment and review of the structures and functions of state and governmental agencies is essential for identifying and addressing overlapping and duplicative mandates.⁶⁹ This rationalization process should focus on the following key areas:

1. Detailed Mapping of Mandates and Functions

Conducting a detailed mapping of the mandates and functions of all state and governmental agencies can help identify areas of overlap and duplication.⁷⁰ This mapping should include an analysis of existing laws, regulations, and policies that define the roles and responsibilities of each

⁶⁵ Ibid

⁶⁶ Ibid

⁶⁷ Ibid

⁶⁸ Ibid

⁶⁹ Onyango, G. (2019). Organizational trust and accountability reforms in public management: Analysis of inter-agency implementation relations in Kenya. *International Journal of Public Administration*.

⁷⁰ Ibid

agency.⁷¹

2. Stakeholder Engagement and Consultation

Engaging stakeholders, including government officials, agency representatives, and civil society organizations, is crucial for gaining insights into the practical challenges posed by overlapping mandates.⁷² Consultations can help gather valuable feedback and suggestions for streamlining functions.

3. Legal and Regulatory Reforms

Based on the findings of the comprehensive assessment, legal and regulatory reforms should be proposed to clearly delineate the roles and responsibilities of each agency. This may involve amending existing laws, drafting new legislation, and repealing redundant regulations to eliminate conflicts and overlaps.⁷³

4. Institutional Realignment and Coordination Mechanisms

Implementing institutional realignment, where necessary, to consolidate functions and enhance coordination among agencies can help reduce duplication.⁷⁴ Establishing clear coordination mechanisms and inter-agency protocols can facilitate better collaboration and resource sharing.⁷⁵

5. Continuous Monitoring and Evaluation

Establishing a framework for continuous monitoring and evaluation of agency functions and performance can ensure that the rationalization efforts are effective and sustainable.⁷⁶ Periodic reviews and audits can help identify any emerging overlaps and address them promptly.

⁷¹ Ibid

⁷² Ibid

⁷³ Ibid

⁷⁴ Ibid

⁷⁵ Ibid

⁷⁶ Ibid

6. Capacity Building and Training

Investing in capacity building and training for agency staff can enhance their understanding of their specific roles and responsibilities.⁷⁷ This can help prevent encroachment on the functions of other agencies and promote a culture of accountability and efficiency.

4.2 Adoption of Legislation to Govern Operational Conflict and Cooperation

To address operational conflicts and promote cooperation between state and governmental agencies, Kenya should develop and adopt comprehensive legislation.⁷⁸ This legislation should outline clear protocols for conflict resolution and establish frameworks for inter-agency cooperation. By doing so, it will ensure that all agencies work harmoniously towards common goals, thereby reducing inefficiencies and resource wastage. The legislation should also aim to enhance policy coherence across various sectors. This involves aligning the policies and directives of different agencies to avoid contradictions and ensure that they complement each other.⁷⁹ Clear guidelines and standardized procedures can help in achieving this coherence, making public administration more effective and unified.⁸⁰

The United States' approach with the Consolidating and Reforming Government Act of 2012⁸¹ offers valuable lessons. This Act empowers the President to propose reorganization plans to Congress aimed at reducing duplication and fragmentation within the federal government. The goal is to create a leaner and more efficient government by consolidating agencies and eliminating redundant functions. Kenya can draw from this model by empowering a central authority to propose and implement similar consolidation and reform measures, ensuring that government operations are streamlined and efficient.

⁷⁷ Onyango, G. (2022). Understanding dis-functionalities in multi-agency policy collaborations for public accountability in Kenya. *Qeios*.

⁷⁸ Ibid

⁷⁹ Ibid

⁸⁰ Ibid

⁸¹ Consolidating and Reforming Government Act, 2012

Guidelines for the Management of State Corporations were issued by the Public Service Commission (PSC) of Kenya, addressing the legal and institutional framework for the management of state corporations.⁸² The guidelines cover various aspects such as terms of service, establishment and dissolution of state corporations, and human resource management. The guidelines provide a comprehensive framework for managing state corporations, including the establishment, operationalization, and dissolution of these entities. It highlights the role of the PSC in overseeing human resource management and ensuring compliance with the Public Service Commission Act and the Constitution of Kenya.⁸³

The guidelines point out the inconsistency of the guidelines with Article 234 of the Constitution and previous court decisions, emphasizing that only the PSC has the authority to establish offices and approve human resource instruments in the public service. The guidelines are said to violate constitutional provisions and court decisions by overstepping the PSC's mandate and relying on sections of the State Corporations Act that have been found unconstitutional. It suggests the need for stakeholder consultation and compliance with statutory requirements for the development and implementation of such guidelines.

The PSC's guidelines and the associated legal conflicts highlight the need for a comprehensive review of the mandates and functions of state corporations. This ensures clear delineation of responsibilities and avoids overreach or duplication of roles. The legal conflicts between the PSC's guidelines and constitutional mandates underscore the necessity of adopting clear legislation to govern operational conflicts. This aligns with the proposal for legislative reforms to enhance inter-agency cooperation and ensure policy coherence. The guidelines' emphasis on the PSC's role in coordinating human resource management across state corporations supports the proposal for mechanisms to ensure efficient coordination of cross-agency priorities.

⁸² Guidelines for the Management of State Corporations, 2024

⁸³ Ibid

In addition, The Security Services Laws (Amendment) Bill, 2023, aims to amend various security laws to clarify the investigative powers of the National Police Service (NPS) and the Independent Policing Oversight Authority (IPOA). The bill also seeks to expand the civilian oversight functions of the IPOA.⁸⁴ The Security Services Laws (Amendment) Bill, 2023, exemplifies the kind of legislative reforms needed to clarify roles and reduce operational conflicts between investigative bodies. By clearly defining the powers of the NPS and IPOA, the bill aims to ensure smoother cooperation and more efficient handling of security issues.

The Bill's provisions for expanding IPOA's oversight functions underscore the need for robust mechanisms to coordinate cross-agency priorities. Enhanced civilian oversight can help align the objectives of different security agencies, ensuring they work towards common goals without redundancy. The ongoing legislative efforts, such as those seen in the Security Services Laws (Amendment) Bill, highlight the importance of continuous monitoring and legal reforms to prevent and resolve conflicts between state agencies.

4.3 Coordination of Cross-Agency Priorities

There is a critical need for a robust mechanism to efficiently coordinate cross-agency functions.⁸⁵ This mechanism should ensure that all agencies are aligned towards the same objectives and outcomes.⁸⁶ It could include the establishment of inter-agency committees or task forces that focus on specific cross-cutting priorities, facilitating regular communication, and collaborative planning sessions among agencies.⁸⁷ This would enhance synergy, reduce redundancy, and promote unified efforts in achieving national goals.⁸⁸

⁸⁴ The Security Services Laws (Amendment) Bill, 2023

⁸⁵ Onyango, G. (2022). Understanding dis-functionalities in multi-agency policy collaborations for public accountability in Kenya. *Qeios*.

⁸⁶ *Ibid*

⁸⁷ *Ibid*

⁸⁸ *Ibid*

4.4 Continuous Monitoring, Prevention, and Early Intervention

The Kenya Law Reform Commission should be tasked with continuous monitoring of the functions and interactions of state and governmental agencies. This proactive approach would help in identifying and preventing potential conflicts early. The Commission could develop a framework for regular audits and assessments, ensuring that any emerging issues are addressed promptly. Early intervention strategies would include mediation and facilitation of inter-agency dialogues to resolve conflicts before they escalate.

4.5 Training and Capacity Building of Public Officers

There is a need to invest in the retraining of public officers to enhance their operational flexibility and inter-agency cooperation. Training programs should focus on developing skills in collaborative governance, conflict resolution, and integrated service delivery. Capacity building initiatives could include workshops, joint training sessions, and exchange programs to foster a culture of cooperation and understanding among different agencies. This would not only improve efficiency but also build a workforce capable of adapting to dynamic public service challenges.

Conclusion

The overlapping and duplicative mandates among state and governmental agencies in Kenya present a significant challenge to the efficiency and effectiveness of public service delivery. This issue results in conflicts, inefficiencies, and the wastage of public resources, ultimately burdening the taxpayers.⁸⁹ The case studies and examples discussed in this paper, such as the conflicts between the EACC and DCI, IPOA and the National Police Service, and the overlapping roles in regulating in-vitro diagnostic systems, underscore the urgent need for comprehensive legal and institutional reforms.

To mitigate these challenges, it is essential to undertake a thorough rationalization of agency mandates and functions, adopt clear legislation to

⁸⁹ Ibid

govern operational conflicts, and establish robust coordination mechanisms. Continuous monitoring and early intervention by the Kenya Law Reform Commission, coupled with targeted training and capacity-building initiatives for public officers, will further enhance operational efficiency and inter-agency cooperation.⁹⁰ Drawing lessons from international practices, such as the United States' Consolidating and Reforming Government Act of 2012, Kenya can develop a more streamlined and effective public sector.

By implementing these reforms, Kenya can significantly improve the quality of public service delivery, ensure better utilization of resources, and foster a more coherent and efficient governance structure, ultimately benefiting its citizens and enhancing overall national development.

⁹⁰ Ibid

References

Alfred Ong'era & Beverly Muthoki Musili 'Public Sector Reforms in Kenya: Challenges and Opportunities' *Kenya Institute for Public Policy Research and Analysis (KIPPRA) Working Paper No. 29 2019*

Allan Odhiambo (2023) 'PSC rejects proposal to cut out non-practice allowance' *Nation* available at https://nation.africa/kenya/business/psc-rejects-proposal-to-cut-out-non-practice-allowance-4150036#google_vignette

Anti-Counterfeit Act

Chen vs. R Criminal Appeal E183 of 2023

Consolidating and Reforming Government Act, 2012

Constitution of Kenya, 2010

Daud, Y. M. (2024). A Review of Effectiveness of Anti-Corruption Strategies and Institutions in Kenya. *African Journal of Commercial Studies*, 4(4), 303-318.

Ethics and Anti-Corruption Commission Act

Guidelines for the Management of State Corporations, 2024

Independent Policing Oversight Authority Act

Kenya Revenue Authority Act

KMPDU v. SRC, PSC, CoG, and 47 Counties ELRC Petition No. E006/2023

Law Society of Kenya (LSK) press statement on the establishment of a Presidential Taskforce on Forensic Audit of Public Debt, as outlined in Gazette Notice No. 8261 of 2024.

Medical Laboratory Technicians and Technologists Act

Problematic Overlaps and Duplication of Mandates of State and Governmental Agencies in Kenya: Proposals for Legal and Institutional Reform: Michael Sang (2024) *Journal of cmsd Volume 11(5)*

National Police Service Act

Omondi, M. (2021). *Asset Recovery in Corruption Cases: Towards a More Efficient Legal Framework for Recovering Assets* (Doctoral dissertation, University of Nairobi).

Ondago v Natembeya & 15 others [2023] KEHC 22268 (19 September 2023)

Onyango, G. (2019). Organizational trust and accountability reforms in public management: Analysis of inter-agency implementation relations in Kenya. *International Journal of Public Administration*.

Onyango, G. (2022). Understanding dis-functionalities in multi-agency policy collaborations for public accountability in Kenya. *Qeios*.

Onyango, G. (2024). Social Processes of Public Sector Collaborations in Kenya: Unpacking Challenges of Realising Joint Actions in Public Administration. *Journal of the Knowledge Economy*, 1-31.

Pharmacy and Poisons Act

Pharmacy and Poisons Board v. Wanjala & 7 Others [2021] KECA 348 (KLR) Civil Appeal No. 211 of 2017

Republic vs. Zhou Wu Alias William T/A Zonken Medical Supplies Limited Criminal Case No. 1457 of 2020

Standards Act

The Commonwealth (2016), *Key Principles of Public Sector Reforms; Case Studies and Frameworks*.

The Security Services Laws (Amendment) Bill, 2023

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability

*By: Hon. Prof. Kariuki Muigua**

Abstract

The Post-2015 Agenda and Rio+20 follow-up efforts use technology, research, and capacity development. Science, technology, and innovation (STI) are key to building prosperous, inclusive, and environmentally sustainable economies in developing and developed countries, according to the 2030 Agenda for Sustainable Development.

The development, deployment, and distribution of environmentally friendly technologies in a Green Economy are linked to other key components and implementation processes. Sustainability studies must include ecosystem health as human activity harms or degrades ecosystems. Understanding human activity's effects on climate change, land use changes, biodiversity loss, and habitat degradation helps create ecosystem health initiatives.

Digital technology, especially ICT, drives industrial innovation and infrastructure development. By increasing productivity, employment, and entrepreneurship, ICT may boost economic growth. Smart manufacturing and circular economy frameworks help improve industrial sustainability.

Citizen science, which involves volunteers in scientifically supported activities like data gathering, can help achieve all 17 Sustainable Development Goals (SDGs) of poverty alleviation, health promotion, land, air, and water preservation, economic prosperity, peace, and justice.

Ecological sustainability requires resilience, balance, and equity, measures by an ecosystem's structural and functional recovery from shocks. Technology may reduce vulnerabilities and improve adaptive capacities to climate change and other natural disasters.

This paper critically discusses how science and technology can be explored and used in

enhancing ecosystem health, community resilience and sustainability.

1. Introduction

Technology, science, and capacity development are fundamental components of the Means of Implementation for the Post-2015 Agenda and the Rio+20 follow-up initiatives.¹

The United Nations categorizes the methods of implementation for the Sustainable Development Goals (SDGs) as financing, technology, capacity development, trade, policy coherence, collaboration, data monitoring, and accountability.² The 2030 Agenda for Sustainable Development underscores science, technology, and innovation (STI) as a crucial catalyst for fostering affluent, inclusive, and ecologically sustainable economies in both developing and developed nations.³ Science for sustainable development must provide the evidence necessary to overcome existing socio-economic and particularly political stalemates, allowing innovative and revolutionary solutions that yield significant, if not enduring, improvements.⁴ An essential method for implementing sustainable development objectives, integral to the 2030 Agenda,

**PhD in Law (Nrb), FCI Arb (Chartered Arbitrator), LL. B (Hons) Nrb, LL.M (Environmental Law) Nrb; Dip. In Law (KSL); FCPS (K); Dip. In Arbitration (UK); MKIM; Mediator; Consultant: Lead expert EIA/EA NEMA; BSI ISO/IEC 27001:2005 ISMS Lead Auditor/ Implementer; Advocate of the High Court of Kenya; Professor of Environmental Law at the University of Nairobi, Faculty of Law.*

¹ 'Technology | Department of Economic and Social Affairs' <<https://sdgs.un.org/topics/technology>> accessed 4 November 2024.

² Gervas E. Assey, 'The Role of Science, Technology and Innovation in Implementation of Sustainable Development Goals', *The Cradle of Knowledge: African Journal of Educational and Social Science Research*, Volume 8, No.1, 2020 ISSN 2304-2885-p, 2617-7315e.

³ Ibid.; see also 'Digital Technologies Directly Benefit 70 Percent of SDG Targets, Say ITU, UNDP and Partners' (UNDP) <<https://www.undp.org/press-releases/digital-technologies-directly-benefit-70-percent-sdg-targets-say-itu-undp-and-partners>> accessed 5 November 2024.

⁴ Ibid.

is the efficient utilisation of science, technology, and innovation.⁵

The research, development, deployment, and extensive dissemination of environmentally sustainable technologies within a Green Economy are intricately connected to other fundamental components and implementation mechanisms, such as innovation, business prospects and growth, trade in environmental goods and services, financing and investment, and institutional competencies.⁶

The health of ecosystems is a vital term in sustainability studies, since ecosystems are increasingly harmed or deteriorated by pressures linked to human activity.⁷ An intact ecosystem delivers vital services for humanity and the natural world, with considerable social and economic worth.⁸ Comprehending the impact of human activity on climate change, land use alteration, biodiversity decline, and habitat degradation enables the formulation of strategies to attain and sustain ecosystem health.⁹ Ecosystem health denotes the condition and capacity of an ecosystem to sustain its structural integrity, functional vitality, and resilience in the face of stress, while consistently delivering high-quality ecosystem services for current and future generations indefinitely.¹⁰ It has been characterized via

⁵ Ibid.

⁶ 'Technology | Department of Economic and Social Affairs' <<https://sdgs.un.org/topics/technology>> accessed 4 November 2024.

⁷ Lu Y and others, 'Ecosystem Health towards Sustainability' (2015) 1 Ecosystem Health and Sustainability 1 <<https://spj.science.org/doi/10.1890/EHS14-0013.1>> accessed 4 November 2024.

⁸ Ibid.

⁹ Ibid.; Sintayehu DW, 'Impact of Climate Change on Biodiversity and Associated Key Ecosystem Services in Africa: A Systematic Review' (2018) 4 Ecosystem Health and Sustainability 225; Wang Z and others, 'Biodiversity Conservation in the Context of Climate Change: Facing Challenges and Management Strategies' (2024) 937 Science of The Total Environment 173377; Weiskopf SR and others, 'Climate Change Effects on Biodiversity, Ecosystems, Ecosystem Services, and Natural Resource Management in the United States' (2020) 733 Science of The Total Environment 137782; Dejene S, 'Impact of Climate Change on Biodiversity and Associated Key Ecosystem Services in Africa: A Systematic Review' (2018) 4 Ecosystem Health and Sustainability 225.

¹⁰ Lu Y and others, 'Ecosystem Health towards Sustainability' (2015) 1 Ecosystem Health

Hon. Prof. Kariuki Muigua

several viewpoints, including sickness, vital signs and system integrity, resilience, and environmental stressors shaped by social and cultural norms.¹¹ An ecosystem is deemed healthy when it is sustainable, signifying its ability to preserve its structure and function throughout time despite external stressors.¹² It has rightly been pointed out that people are now more empowered thanks to digital technology, economic diversity brought about by innovation that makes countries more resilient to shocks, and new technologies may be able to separate environmental deterioration from economic growth.¹³ According to SDG 9, technology, especially Information and Communication Technology (ICT), is a crucial facilitator of industry innovation and infrastructural advancement.¹⁴ Information and Communication Technology (ICT) may stimulate economic development by improving productivity, generating employment, and promoting entrepreneurship.¹⁵ Furthermore, it may enhance industrial sustainability by promoting the shift towards smart manufacturing and circular economy frameworks.¹⁶

Through the use of modern technology, citizen science involves volunteers in scientifically supported activities like data gathering.¹⁷ Citizen science presents an innovative, multifaceted method for enhancing physical activity and other healthful behaviours in both affluent and under-resourced, marginalised

and Sustainability 1 <<https://spj.science.org/doi/10.1890/EHS14-0013.1>> accessed 4 November 2024.

¹¹ Ibid.

¹² Ibid.

¹³ United Nations Conference on Trade and Development., *The Role of Science, Technology and Innovation in Building Resilient Communities, Including through the Contribution of Citizen Science* ([Erscheinungsort nicht ermittelbar] United Nations 2020 2020).

¹⁴ 'Technology | Sustainable Development Goals - Resource Centre' <<https://sdgresources.relx.com/technology-0>> accessed 4 November 2024.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ United Nations Conference on Trade and Development., *The Role of Science, Technology and Innovation in Building Resilient Communities, Including through the Contribution of Citizen Science* ([Erscheinungsort nicht ermittelbar] United Nations 2020).

communities.¹⁸ This approach enables residents to gather diagnostic data regarding their community environment, identify priority issues, and collaborate across sectors to develop effective and meaningful solutions.¹⁹ Scientists must thus engage with society, use new technologies for knowledge generation, and enhance their research via collaboration with people and volunteers.²⁰ The public engaged in scientific research stands to benefit significantly, from the development of scientific competencies to a profound feeling of contributing to societal progress.²¹ Citizen science establishes a connection between science and education that, when integrated with modern technology, broadens the horizons of ecological research and public involvement.²²

Digital technologies may positively contribute to the attainment of all 17 Sustainable Development Goals (SDGs), including the alleviation of poverty and hunger, the promotion of health and education, the preservation of land, air, and water, and the enhancement of economic prosperity, peace, and justice.²³

Resilience, balance, and equality are the three main attributes indicative of ecological sustainability.²⁴ Resilience is quantified by an ecosystem's ability to

¹⁸ King AC and others, 'Leveraging Citizen Science and Information Technology for Population Physical Activity Promotion' (2016) 1 *Translational journal of the American College of Sports Medicine* 30.

¹⁹ Ibid.

²⁰ Roberto, 'Public Participation in Scientific Programmes: Citizen Science for Biodiversity' (*International Science Council*, 6 January 2023) <<https://council.science/current/blog/public-participation-in-scientific-programmes-citizen-science-for-biodiversity/>> accessed 5 November 2024.

²¹ Ibid.

²² Newman, Greg, Andrea Wiggins, Alycia Crall, Eric Graham, Sarah Newman, and Kevin Crowston, "The future of citizen science: emerging technologies and shifting paradigms." *Frontiers in Ecology and the Environment* 10, no. 6 (2012): 298-304.

²³ Dennehy D and others, 'Technology and Analytics for Global Development: Transforming Agriculture, Empowering Sustainable Livelihoods, and Ensuring Planetary Well-Being' (2024) 43 *IEEE Technology and Society Magazine* 44.

²⁴ Lu Y and others, 'Ecosystem Health towards Sustainability' (2015) 1 *Ecosystem Health and Sustainability* 1 <<https://spj.science.org/doi/10.1890/EHS14-0013.1>> accessed 4

recover structurally and functionally from disturbances.²⁵ Resilience refers to an ecosystem's ability to recuperate from dysfunction, but resilience also denotes the capability to sustain ecological function throughout stress.²⁶ Resilience measurements may concentrate on the recovery rate and extent of the variables assessed to gauge resistance.²⁷

Research indicates that citizen science methodologies can enhance community resilience at the institutional level by augmenting emergency and recovery planning capabilities; at the infrastructural level by aiding land use planning and urban design; and at the social level by fostering community connections and social capital.²⁸

More and more, communities are realising that technology can help them better withstand the effects of climate change and other natural catastrophes.²⁹ Reducing vulnerabilities and strengthening adaptive capabilities becomes critical as climate change amplifies the frequency and severity of natural catastrophes.³⁰

November 2024.

²⁵ Ibid.

²⁶ Ibid.; see also Zabaniotou A, 'A Systemic Approach to Resilience and Ecological Sustainability during the COVID-19 Pandemic: Human, Societal, and Ecological Health as a System-Wide Emergent Property in the Anthropocene' (2020) 2 *Global Transitions* 116.

²⁷ Ibid.; see also Asheim GB and others, 'The Measurement of Resilience' (2020) 189 *Journal of Economic Theory* 105104.

²⁸ Daniel AD and Fernandes J, 'Promotion of Community Resilience: Do Citizens Have a Role to Play?' (2024) 29 *Local Environment* 987 <<https://www.tandfonline.com/doi/full/10.1080/13549839.2024.2345621>> accessed 4 November 2024; see also Law E and others, 'The Science of Citizen Science: Theories, Methodologies and Platforms', *Companion of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing* (Association for Computing Machinery 2017) <<https://doi.org/10.1145/3022198.3022652>> accessed 4 November 2024.

²⁹ 'The Role of Technology in Enhancing Community Resilience to Climate Change and Natural Disasters. - Consensus Academic Search Engine' <<https://consensus.app/questions/role-technology-enhancing-community-resilience-climate/>> accessed 4 November 2024.

³⁰ Ibid.

One way to do this is by harnessing technology breakthroughs.³¹ Technology provides effective instruments for preventing and adapting to climate change in relation to SDG 13.³² Renewable energy technology may mitigate greenhouse gas emissions, whilst climate information services can bolster resistance to climate effects.³³ Moreover, digital technology may enhance the monitoring and reporting of climate initiatives, so fostering increased openness and accountability.³⁴

This paper critically discusses how science and technology can be explored and used in enhancing ecosystem health, community resilience and sustainability.

2. Ecosystem Health, Community Resilience and Sustainability: Challenges and Prospects

The evaluation of ecosystem health is measuring a system's resistance and resilience by introducing distresses or stressors and noting the extent of initial deformation and subsequent recovery.³⁵ Key indicators for assessing ecosystem health encompass biological indicators at the ecosystem, community, population, and individual levels; physicochemical indicators; soil physical and chemical characteristics; soil structure; soil enzyme activity; and socioeconomic indicators.³⁶

An ecological system is deemed healthy and devoid of distress syndrome if it

³¹ Ibid.

³² 'Technology | Sustainable Development Goals - Resource Centre' <<https://sdgresources.relx.com/technology-0>> accessed 4 November 2024.

³³ Ibid.

³⁴ Ibid.

³⁵ Lu Y and others, 'Ecosystem Health towards Sustainability' (2015) 1 *Ecosystem Health and Sustainability* 1 <<https://spj.science.org/doi/10.1890/EHS14-0013.1>> accessed 4 November 2024.

³⁶ Ibid.; see also Bhaduri D and others, 'A Review on Effective Soil Health Bio-Indicators for Ecosystem Restoration and Sustainability' (2022) 13 *Frontiers in Microbiology* <<https://www.frontiersin.org/journals/microbiology/articles/10.3389/fmicb.2022.938481/full>> accessed 5 November 2024.

exhibits stability and sustainability, remains active while preserving its structure and autonomy throughout time, and demonstrates resilience to stress.³⁷ The health of an ecosystem is crucial for its ability to provide services that confer social and economic benefits to the human population. Ecosystem services are often classified into four categories: supplying, regulating, sustaining, and cultural services.³⁸ Enhancing human welfare via improved ecosystem services necessitates a deeper comprehension of the integrated social-ecological system, alongside advancements in the design of suitable finance, policy, and governance frameworks, as well as their implementation across varied social and ecological contexts.³⁹

The health of ecosystems is intrinsically linked to sustainability, which is defined as the capacity to meet present and future societal demands for ecological services.⁴⁰ The capacity to perpetually provide ecosystem services for future

³⁷ Lu Y and others, 'Ecosystem Health towards Sustainability' (2015), op. cit.; Costanza, Robert, and Michael Mageau. "What is a healthy ecosystem?" *Aquatic ecology* 33 (1999): 105-115.

³⁸ Ibid.; Danley B and Widmark C, 'Evaluating Conceptual Definitions of Ecosystem Services and Their Implications' (2016) 126 *Ecological Economics* 132.

³⁹ Ibid.; You C and others, 'Trade-off and Synergistic of Ecosystem Services Supply and Demand Based on Socio-Ecological System (SES) in Typical Hilly Regions of South China' (2024) 160 *Ecological Indicators* 111749; Yang W and others, 'An Integrated Approach to Understanding the Linkages between Ecosystem Services and Human Well-Being' (2015) 1 *Ecosystem Health and Sustainability* 19; Chaplin-Kramer R and others, 'Integrated Modeling of Nature's Role in Human Well-Being: A Research Agenda' (2024) 88 *Global Environmental Change* 102891; Huntsinger L and Oviedo J, 'Ecosystem Services Are Social-Ecological Services in a Traditional Pastoral System: The Case of California's Mediterranean Rangelands' (2014) 19 *Ecology And Society* 8.

⁴⁰ Lu Y and others, 'Ecosystem Health towards Sustainability' (2015) op. cit.; Norton B, 'Sustainability, Human Welfare, and Ecosystem Health' (1992) 1 *Environmental Values* 97; Ellis EC, Pascual U and Mertz O, 'Ecosystem Services and Nature's Contribution to People: Negotiating Diverse Values and Trade-Offs in Land Systems' (2019) 38 *Current Opinion in Environmental Sustainability* 86; Butler CD and Soskolne CL, 'Ecosystems, Stable and Sustainable' in Marc D Gellman and J Rick Turner (eds), *Encyclopedia of Behavioral Medicine* (Springer 2013) <https://doi.org/10.1007/978-1-4419-1005-9_1394> accessed 5 November 2024.

generations has been emphasised as a significant concern in environmental justice.⁴¹

Communities may cultivate resilience by proactively enhancing their potential to prosper in a dynamic environment, and community resilience serves as a crucial measure of social sustainability.⁴² Community resilience is the presence, cultivation, and involvement of community resources by members to prosper in an environment marked by change, uncertainty, unpredictability, and surprise.⁴³ The primary emphasis of community resilience is on risk and hazard management, specifically the capacity of a community to recover to its prior state following a disturbance.⁴⁴ A more comprehensive definition of this type of resilience encompasses the community's ability to pursue a shared goal, foster self-sufficiency, and enhance its inherent capacity to mitigate vulnerability to shocks.⁴⁵

⁴¹ Lu Y and others, 'Ecosystem Health towards Sustainability' (2015) op. cit.; Langemeyer J and others, 'Ecosystem Services Justice: The Emergence of a Critical Research Field' (2024) 69 *Ecosystem Services* 101655; Calderón-Argelich A and others, 'Tracing and Building up Environmental Justice Considerations in the Urban Ecosystem Service Literature: A Systematic Review' (2021) 214 *Landscape and Urban Planning* 104130; Kronenberg J, 'Environmental Impacts of the Use of Ecosystem Services: Case Study of Birdwatching' (2014) 54 *Environmental Management* 617; Aragao A, Jacobs S and Cliquet A, 'What's Law Got to Do with It? Why Environmental Justice Is Essential to Ecosystem Service Valuation' (2016) 22 *Ecosystem Services*; Lele S and others, 'Ecosystem Services: Origins, Contributions, Pitfalls, and Alternatives' (2013) 11 *Conservation and Society* 343.
⁴² Magis K, 'Community Resilience: An Indicator of Social Sustainability' (2010) 23 *Society & Natural Resources* 401
<<http://www.tandfonline.com/doi/abs/10.1080/08941920903305674>> accessed 4 November 2024.

⁴³ Ibid.

⁴⁴ Quaranta, Giovanni, Cristina Dalia, Luca Salvati, and Rosanna Salvia. "Building resilience: an art-food hub to connect local communities." *Sustainability* 11, no. 24 (2019): 7169.

⁴⁵ Ibid.; Lv Y, Sarker MNI and Firdaus RBR, 'Disaster Resilience in Climate-Vulnerable Community Context: Conceptual Analysis' (2024) 158 *Ecological Indicators* 111527; Norris F and others, 'Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness' (2008) 41 *American journal of community psychology*

Hon. Prof. Kariuki Muigua

Fostering resilience in communities necessitates capitalizing on possibilities across several domains, including the acquisition of financial and human capital resources via collaborations with governmental bodies, non-profit organisations, and private sector companies.⁴⁶ Collaboration and community involvement may bolster resilience initiatives by consolidating resources, expertise, and competencies from community members, stakeholders, and local organisations.⁴⁷ Technological improvements provide opportunities, like digital technologies, data analytics, and predictive modelling, which may be used to enhance community resilience.⁴⁸

127; Carlson J and others, *Resilience: Theory and Application* (2012); Carmen E and others, 'Building Community Resilience in a Context of Climate Change: The Role of Social Capital' (2022) 51 *Ambio* 1371; Ungar M, 'Systemic Resilience: Principles and Processes for a Science of Change in Contexts of Adversity' (2018) 23 *Ecology and Society* <<https://www.jstor.org/stable/26796886>> accessed 5 November 2024.

⁴⁶ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023) 10 *Bhumi The Planning Research Journal* 33.

⁴⁷ *Ibid.*; Elkady S, Hernantes J and Labaka L, 'Towards a Resilient Community: A Decision Support Framework for Prioritizing Stakeholders' Interaction Areas' (2023) 237 *Reliability Engineering & System Safety* 109358; Ma C, Qirui C and Lv Y, "'One Community at a Time": Promoting Community Resilience in the Face of Natural Hazards and Public Health Challenges' (2023) 23 *BMC Public Health*; Castañer X and Oliveira N, 'Collaboration, Coordination, and Cooperation Among Organizations: Establishing the Distinctive Meanings of These Terms Through a Systematic Literature Review' (2020) 46 *Journal of Management* 965; Jensen O and Ong C, 'Collaborative Action for Community Resilience to Climate Risks: Opportunities and Barriers' (2020) 12 *Sustainability* 3413; Haque CE, Khan SA and Choudhury M, 'Role of Multi-Level Institutions in Facilitating Innovation and Adaptation Technologies for Reducing Climate Risk and Impact: Evidence from Coastal Communities of Bangladesh' (2024) 111 *International Journal of Disaster Risk Reduction* 104669.

⁴⁸ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op. cit.*; Argyroudou SA and others, 'Digital Technologies Can Enhance Climate Resilience of Critical Infrastructure' (2022) 35 *Climate Risk Management* 100387; Samarakkody A, Amaratunga D and Haigh R, 'Technological Innovations for Enhancing Disaster Resilience in Smart Cities: A Comprehensive Urban Scholar's Analysis' (2023) 15 *Sustainability* 12036; 'UNDP Digital Guides - Livelihoods and Economic Recovery' <<https://digitalguides.undp.org/guide/livelihoods-and-economic-recovery>> accessed 5 November 2024; Girotto CD and others, 'A Critical Review of Digital Technology Innovations for Early Warning of Water-Related Disease Outbreaks Associated with

Obstacles to developing resilience include limited resource availability, isolated or rural areas unable to access vital infrastructure and services, and disadvantaged groups facing disproportionate effects and diminished recovery capability.⁴⁹ Concentrated efforts and specific assistance are required to tackle resource limitations, enhance access to infrastructure and services, and guarantee the involvement and resilience of marginalised communities in community resilience programs.⁵⁰

Public-private collaborations are essential for disseminating ICTs to all countries, populations, and communities.⁵¹ Collaborations are essential for constructing the physical infrastructure necessary to provide Internet services in remote regions and underserved communities, as well as to promote the investment, inclusiveness, and innovation needed for the comprehensive achievement of the Sustainable Development Goals (SDGs).⁵²

3. Place of Science and Technology in Promoting Sustainability

Sustainability science has recently developed as a dynamic domain of study and innovation.⁵³ The motives are rooted in the World Commission on Environment

Climatic Hazards' (2024) 100 *International Journal of Disaster Risk Reduction* 104151; 'Digital Technologies Enhance the Resilience of Individuals and Communities - Degrees' (19 June 2017) <<https://degrees.fhi360.org/2017/06/digital-technologies-enhance-the-resilience-of-individuals-and-communities/>, <https://degrees.fhi360.org/2017/06/digital-technologies-enhance-the-resilience-of-individuals-and-communities/>> accessed 5 November 2024.

⁴⁹ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' *op cit.*.

⁵⁰ *Ibid.*

⁵¹ 'Digital Technologies to Achieve the UN SDGs' (ITU) <<https://www.itu.int:443/en/mediacentre/backgrounders/Pages/icts-to-achieve-the-united-nations-sustainable-development-goals.aspx>> accessed 4 November 2024.

⁵² *Ibid.*; see also 'Digital Technologies Directly Benefit 70 Percent of SDG Targets, Say ITU, UNDP and Partners' (UNDP) <<https://www.undp.org/press-releases/digital-technologies-directly-benefit-70-percent-sdg-targets-say-itu-undp-and-partners>> accessed 5 November 2024.

⁵³ Kates, Robert W. "Readings in sustainability science and technology." *CID Working Paper Series* (2010).

and Development's designation of the paramount problem of our era: to "make development sustainable – ensuring that it satisfies current needs without jeopardising the capacity of future generations to fulfil their own requirements."⁵⁴ Its foundations are established in the scientific and social sciences, engineering, medicine, and several practical knowledge domains.⁵⁵ Its methodologies are integrative and translational, aiming to connect knowledge with action at the intersection of fundamental research and technology innovation.⁵⁶

Sustainability science encompasses the disciplines of science, technology, and innovation aimed at fostering sustainable development—addressing human needs, alleviating hunger and poverty, while preserving the planet's life support systems.⁵⁷

Through the provision of efficient channels of communication and information exchange, technology is crucial in bolstering community resilience.⁵⁸

⁵⁴ Ibid.; 'Sustainability (World Commission on Environment and Development Definition) | Request PDF' <https://www.researchgate.net/publication/303929235_Sustainability_World_Commission_on_Environment_and_Development_Definition> accessed 5 November 2024; Hajian M and Kashani S, 'Evolution of the Concept of Sustainability. From Brundtland Report to Sustainable Development Goals' (2021); Lutteken, A., and K. Hagedorn. "Concepts and Issues of Sustainability in Countries in Transition-an Institutional Concept of Sustainability as a Basis for the Network. Central and Eastern European Sustainable Agriculture Network." In *First Workshop Proceedings. Rome: REU Technical Series*, vol. 61, pp. 26-36. 1999; 'Discover Why We Must Innovate towards Sustainable Abundance' (*World Economic Forum*, 16 August 2024) <<https://www.weforum.org/stories/2024/08/the-next-frontier-innovating-toward-sustainable-abundance/>> accessed 5 November 2024.

⁵⁵ Ibid.

⁵⁶ Ibid.; Zamiri M and Esmaili A, 'Methods and Technologies for Supporting Knowledge Sharing within Learning Communities: A Systematic Literature Review' (2024) 14 *Administrative Sciences* 17; Renn O, 'Transdisciplinarity: Synthesis towards a Modular Approach' (2021) 130 *Futures* 102744.

⁵⁷ Ibid.

⁵⁸ 'The Role of Technology in Enhancing Community Resilience Initiatives' (*FasterCapital*) <<https://fastercapital.com/content/The-Role-of-Technology-in-Enhancing->

Communities may swiftly convey critical information to citizens using technology during emergencies and crises, empowering them to make educated choices and take necessary measures.⁵⁹

By facilitating data collection and analysis, technology also plays an important role in community resilience. Communities may better prepare for and recover from catastrophes if they collect and analyse a variety of data points that reveal weak spots, potential dangers, and opportunities.⁶⁰ Furthermore, technology allows communities to use the power of big data and predictive analytics. Communities may anticipate future dangers and prepare ahead of time by analysing historical data and trends. This proactive strategy assists communities in catastrophe preparation, resource allocation, and effect mitigation.⁶¹

Technology also promotes community participation and cooperation, both of which are necessary for resilience development. Residents, community organisations, and government agencies may use online platforms and forums to interact, exchange ideas, and collaborate on shared resilience objectives.⁶²

Furthermore, technology enables remote meetings and webinars, making it simpler for community members to join in resilience efforts.⁶³ Residents may use

[Community-Resilience-Initiatives.html](#)> accessed 4 November 2024.

⁵⁹ 'The Role of Technology in Enhancing Community Resilience Initiatives' (*FasterCapital*), *op cit.*; Myers N, 'Information Sharing and Community Resilience: Toward a Whole Community Approach to Surveillance and Combatting the "Infodemic"' (2021) 13 *World Medical & Health Policy* 581.

⁶⁰ *Ibid.*; McAllister, Therese, Therese McAllister, Christopher Clavin, Bruce Ellingwood, John Van de Lindt, David R. Mizzen, and Francis M. Lavelle. *Data, information, and tools needed for community resilience planning and decision-making*. Washington, DC: US Department of Commerce, National Institute of Standards and Technology, 2019.

⁶¹ *Ibid.*; see also Tabish, S. A., and Nabil Syed. "Disaster preparedness: current trends and future directions." *Int J Sci Res* 4, no. 6 (2015): 227-52.

⁶² 'The Role of Technology in Enhancing Community Resilience Initiatives' (*FasterCapital*) <<https://fastercapital.com/content/The-Role-of-Technology-in-Enhancing-Community-Resilience-Initiatives.html>> accessed 4 November 2024.

⁶³ *Ibid.*

these forums to express their concerns, exchange experiences, and work with experts and legislators, resulting in more inclusive and effective resilience initiatives.⁶⁴

In summary, technology significantly enhances community resilience by facilitating communication, granting access to emergency services, allowing data collecting and analysis, and promoting collaborative platforms for community participation.⁶⁵ Utilising technology enables communities to enhance their preparedness and response to calamities, so fostering a more resilient future.⁶⁶

While some studies suggest that digital technologies have been essential in bolstering community resilience by facilitating virtual communication, distant resource access, and community involvement, gaps in digital access and literacy have impacted their efficacy.⁶⁷ Mitigating the digital gap and guaranteeing fair access is essential, alongside the provision of continuous assistance, capacity

⁶⁴ Ibid.; see also 'Connecting Communities Through Community Engagement' (5 August 2024) <<https://blog.zencity.io/resources/engagement-beyond-borders-connecting-communities-through-technology>> accessed 5 November 2024; 'The Importance Of Technology In Community Resilience' (*FasterCapital*) <<https://fastercapital.com/keyword/the-importance-of-technology-in-community-resilience.html>> accessed 5 November 2024; Zamiri M and Esmaili A, 'Methods and Technologies for Supporting Knowledge Sharing within Learning Communities: A Systematic Literature Review' (2024) 14 Administrative Sciences 17; 'Digital Technologies Will Help Build Resilient Communities after the Coronavirus Pandemic | PreventionWeb' (29 September 2020) <<https://www.preventionweb.net/news/digital-technologies-will-help-build-resilient-communities-after-coronavirus-pandemic>> accessed 5 November 2024.

⁶⁵ 'The Role of Technology in Enhancing Community Resilience Initiatives' (*FasterCapital*) *op. cit.*; see also Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023) 10 Bhumi The Planning Research Journal 33.

⁶⁶ Ibid.; Baraldo M and Di Giuseppantonio Di Franco P, 'Place-Centred Emerging Technologies for Disaster Management: A Scoping Review' (2024) 112 International Journal of Disaster Risk Reduction 104782.

⁶⁷ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023) *op. cit.*.

development, and community involvement.⁶⁸

4. Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability

Technology is pivotal in realising the Sustainable Development Goals (SDGs), especially SDG 9 (Industry, Innovation, and Infrastructure), SDG 4 (Quality Education), SDG 3 (Good Health and Well-being), and SDG 13 (Climate Action).⁶⁹ Technology's transformational capacity may expedite advancement towards all the Sustainable Development Goals by stimulating economic development, reducing inequities, improving access to essential services, and fostering sustainability.⁷⁰

Digital technologies have the capacity to augment community development and resilience by fostering relationships, enhancing communication, and granting access to resources.⁷¹ Nonetheless, assessing their effects and tackling related problems is essential.⁷²

The intricate and interrelated characteristics of social, environmental, and economic sustainability objectives generate conflicts in the design and execution of digital technology solutions, potentially resulting in design-reality discrepancies.⁷³ A collaborative endeavour among academic disciplines,

⁶⁸ Ibid.

⁶⁹ 'Technology | Sustainable Development Goals - Resource Centre' <<https://sdgresources.relx.com/technology-0>> accessed 4 November 2024.

⁷⁰ Ibid.

⁷¹ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op. cit.*

⁷² See Bhambri P and Kautish S, 'Technological Advancements in Promoting Ecosystem Health' in Walter Leal Filho and others (eds), *Digital Technologies to Implement the UN Sustainable Development Goals* (Springer Nature Switzerland 2024) <https://doi.org/10.1007/978-3-031-68427-2_21> accessed 5 November 2024.

⁷³ Dennehy D and others, 'Technology and Analytics for Global Development: Transforming Agriculture, Empowering Sustainable Livelihoods, and Ensuring Planetary Well-Being' (2024) 43 *IEEE Technology and Society Magazine* 44.

policymakers, practitioners, and the target beneficiaries of the SDGs would facilitate the identification and development of more effective strategies to attain these global objectives.⁷⁴ Communities should embrace and use digital technologies judiciously, taking into account their unique requirements while providing equal access, safeguarding privacy, and promoting long-term sustainability.⁷⁵ Consequently, the advantages of technology are not inherent, and substantial obstacles must be addressed, such as the digital divide, cybersecurity dangers, and ethical concerns over privacy and data ownership.⁷⁶ As a result, legislative interventions and multi-stakeholder collaborations are essential to guarantee that technology acts as a driver for sustainable development rather than intensifying inequality.⁷⁷

There is a need for a complete resiliency action plan to be established to enhance resilience, including vulnerability assessment, goal establishment, and identification of particular activities.⁷⁸ Multi-sector cooperation is a crucial technique that unites government agencies, non-profit organisations, business sector companies, and community people to successfully tackle resilience concerns.⁷⁹ Investing in education and capacity-building initiatives is essential,

⁷⁴ Ibid.

⁷⁵ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op. cit.*

⁷⁶ 'Technology | Sustainable Development Goals - Resource Centre' <<https://sdgresources.relx.com/technology-0>> accessed 4 November 2024.

⁷⁷ Ibid.

⁷⁸ Ibid.; Vaughan, E. and Henly-Shepard, S. (2018). Resilience Measurement Practical Guidance Note Series 1: Risk and Resilience Assessments. Produced by Mercy Corps as part of the Resilience Evaluation, Analysis and Learning (REAL) Associate Award.

⁷⁹ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op. cit.*; Taylor LA and others, 'Building Resilient Partnerships: How Businesses and Nonprofits Create the Capacity for Responsiveness' (2023) 3 *Frontiers in Health Services* 1155941; Xue Y and others, 'Multi-Sector Partnerships in the Urban Development Context: A Scoping Review' (2020) 268 *Journal of Cleaner Production* 122291; Wirba AV, 'Corporate Social Responsibility (CSR): The Role of Government in Promoting CSR' (2024) 15 *Journal of the Knowledge Economy* 7428.

Hon. Prof. Kariuki Muigua

as they provide people with the necessary information and skills to effectively react to and recover from catastrophes.⁸⁰ Policy and governance are essential in establishing supporting rules and policies that promote resilience initiatives.⁸¹ Concerning SDG 4, technology can significantly improve access to high-quality education.⁸² Digital technology, including e-learning platforms, may eliminate obstacles to education, including geographical distance, socio-economic position, and physical limitations.⁸³

Upon the formulation of the resilience action plan, the subsequent stage involves selecting and deploying the necessary technologies to establish and sustain resilient communities.⁸⁴ These instruments may include disaster preparation and

⁸⁰ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op. cit.*; Muttarak R and Lutz W, 'Is Education a Key to Reducing Vulnerability to Natural Disasters and Hence Unavoidable Climate Change?' (2014) 19 *Ecology and Society* <<https://www.jstor.org/stable/26269470>> accessed 5 November 2024; 'Capacity Building for Disaster Risk Management' (*PrepareCenter*) <<https://preparecenter.org/topic/capacity-building-disaster-risk-management/>> accessed 5 November 2024; Fu Q and Zhang X, 'Promoting Community Resilience through Disaster Education: Review of Community-Based Interventions with a Focus on Teacher Resilience and Well-Being' (2024) 19 *PLOS ONE* e0296393; Hoffmann R and Muttarak R, 'Learn from the Past, Prepare for the Future: Impacts of Education and Experience on Disaster Preparedness in the Philippines and Thailand' (2017) 96 *World Development* 32; Shaw R, Takeuchi Y and Rouhban B, 'Education, Capacity Building and Public Awareness for Disaster Reduction' [2009] *Landslides - Disaster Risk Reduction* 499.

⁸¹ *Ibid.*; Beunen R, Patterson J and Van Assche K, 'Governing for Resilience: The Role of Institutional Work' (2017) 28 *Current Opinion in Environmental Sustainability* 10.

⁸² 'Technology | Sustainable Development Goals - Resource Centre' <<https://sdgresources.relx.com/technology-0>> accessed 4 November 2024.

⁸³ *Ibid.*

⁸⁴ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op. cit.*; Cardoso M and others, 'Following a Step by Step Development of a Resilience Action Plan' (2020) 12 *Sustainability* 9017; Alibašić H, *Strategic Resilience and Sustainability Planning: Management Strategies for Sustainable and Climate-Resilient Communities and Organizations* (2022); 'Resilience Roadmap: Resilience Roadmap Stage Assessment |

Hon. Prof. Kariuki Muigua

response plans, risk management techniques, and capacity-building activities.⁸⁵ Assessing and quantifying the performance of these activities is crucial for guaranteeing the efficacy of resilience programs and the allocation of resources.⁸⁶ Relevant stakeholders may implement appropriate resilient solutions to prepare for and recover from natural catastrophes and public health concerns.⁸⁷ By implementing a localized plan, stakeholders may cooperate to cultivate a culture of preparedness and resilience, therefore fostering more sustainable and robust communities.⁸⁸

Digital technologies are essential for enhancing community resilience in the Global South, where conventional communication methods and resource accessibility are often constrained.⁸⁹ These instruments improve several facets of

Making Cities Resilient 2030' (15 August 2023) <<https://mcr2030.undrr.org/resilience-roadmap>> accessed 5 November 2024.

⁸⁵ Ibid.

⁸⁶ Ibid.; Sharifi A, 'A Critical Review of Selected Tools for Assessing Community Resilience' (2016) 69 *Ecological Indicators* 629; Bruckler M and others, 'Review of Metrics to Assess Resilience Capacities and Actions for Supply Chain Resilience' (2024) 192 *Computers & Industrial Engineering* 110176; Campbell B and others, 'Assessing the Performance of Natural Resource Systems' (2001) 5 *Conservation Ecology* <<https://www.ecologyandsociety.org/vol5/iss2/art22/>> accessed 5 November 2024; Dodman D, Diep L and Colenbrander S, *Resilience and Resource Efficiency in Cities* (2017).

⁸⁷ Ma C, Qirui C and Lv Y, "'One Community at a Time": Promoting Community Resilience in the Face of Natural Hazards and Public Health Challenges' (2023) 23 *BMC Public Health* 2510.

⁸⁸ Ibid.

⁸⁹ Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op. cit.*; 'Widening Digital Gap between Developed, Developing States Threatening to Exclude World's Poorest from Next Industrial Revolution, Speakers Tell Second Committee | Meetings Coverage and Press Releases' <<https://press.un.org/en/2023/gaef3587.doc.htm>> accessed 5 November 2024; 'How to Leverage Digital Tools for Social Protection | World Economic Forum' <<https://www.weforum.org/stories/2024/10/digital-tools-social-protection-foster-community-resilience-equality/>> accessed 5 November 2024; Aker JC, 'Chapter 8. Using Digital Technology for Public Service Provision in Developing Countries', *Digital Revolutions in Public Finance* (International Monetary Fund)

community existence, including financial inclusion, healthcare, disaster readiness, and sustainable development.⁹⁰

5. Conclusion

Information and communication technology (ICTs) may expedite advancements towards all 17 United Nations Sustainable Development Goals (SDGs).⁹¹ In summary, digital technology has transformed community development by facilitating access to extensive information, enhancing communication and cooperation, and advancing renewable energy initiatives.⁹² By using these breakthroughs, communities may promote sustainable and resilient growth, establishing interconnected, efficient, and environmentally friendly habitats.⁹³

There is a need for not only exploring the potential ways through which science and technology can be used to enhance ecosystem health, community resilience and sustainability but also to empower communities fully to enable them participate meaningfully and also contribute to these efforts.

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability is an ideal that is achievable.

<<https://www.elibrary.imf.org/display/book/9781484315224/ch008.xml>> accessed 5 November 2024.

⁹⁰ Ibid.; Morris J, Morris W and Bowen R, 'Implications of the Digital Divide on Rural SME Resilience' (2022) 89 *Journal of Rural Studies* 369.

⁹¹ 'Digital Technologies to Achieve the UN SDGs' (ITU) <<https://www.itu.int:443/en/mediacentre/backgrounders/Pages/icts-to-achieve-the-united-nations-sustainable-development-goals.aspx>> accessed 4 November 2024.

⁹² Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023), *op cit*.

⁹³ Ibid.; Martínez-Peláez R and others, 'Role of Digital Transformation for Achieving Sustainability: Mediated Role of Stakeholders, Key Capabilities, and Technology' (2023) 15 *Sustainability* 11221; Olabi AG and others, 'Renewable Energy Systems: Comparisons, Challenges and Barriers, Sustainability Indicators, and the Contribution to UN Sustainable Development Goals' (2023) 20 *International Journal of Thermofluids* 100498.

References

‘Capacity Building for Disaster Risk Management’ (*PrepareCenter*) <<https://preparecenter.org/topic/capacity-building-disaster-risk-management/>> accessed 5 November 2024.

‘Connecting Communities Through Community Engagement’ (5 August 2024) <<https://blog.zencity.io/resources/engagement-beyond-borders-connecting-communities-through-technology>> accessed 5 November 2024.

‘Digital Technologies Directly Benefit 70 Percent of SDG Targets, Say ITU, UNDP and Partners’ (*UNDP*) <<https://www.undp.org/press-releases/digital-technologies-directly-benefit-70-percent-sdg-targets-say-itu-undp-and-partners>> accessed 5 November 2024.

‘Digital Technologies Directly Benefit 70 Percent of SDG Targets, Say ITU, UNDP and Partners’ (*UNDP*) <<https://www.undp.org/press-releases/digital-technologies-directly-benefit-70-percent-sdg-targets-say-itu-undp-and-partners>> accessed 5 November 2024.

‘Digital Technologies Enhance the Resilience of Individuals and Communities - Degrees’ (19 June 2017) <<https://degrees.fhi360.org/2017/06/digital-technologies-enhance-the-resilience-of-individuals-and-communities/>, <https://degrees.fhi360.org/2017/06/digital-technologies-enhance-the-resilience-of-individuals-and-communities/>> accessed 5 November 2024.

‘Digital Technologies to Achieve the UN SDGs’ (*ITU*) <<https://www.itu.int:443/en/mediacentre/backgrounders/Pages/icts-to-achieve-the-united-nations-sustainable-development-goals.aspx>> accessed 4 November 2024.

‘Digital Technologies Will Help Build Resilient Communities after the Coronavirus Pandemic | PreventionWeb’ (29 September 2020)

Embracing Science and Technology for Ecosystem Health, (2024) Journal of cmsd Volume 11(5)
Community Resilience and Sustainability:
Hon. Prof. Kariuki Muigua

<<https://www.preventionweb.net/news/digital-technologies-will-help-build-resilient-communities-after-coronavirus-pandemic>> accessed 5 November 2024.

‘Discover Why We Must Innovate towards Sustainable Abundance’ (*World Economic Forum*, 16 August 2024)
<<https://www.weforum.org/stories/2024/08/the-next-frontier-innovating-toward-sustainable-abundance/>> accessed 5 November 2024.

‘How to Leverage Digital Tools for Social Protection | World Economic Forum’
<<https://www.weforum.org/stories/2024/10/digital-tools-social-protection-foster-community-resilience-equality/>> accessed 5 November 2024.

‘Resilience Roadmap: Resilience Roadmap Stage Assessment | Making Cities Resilient 2030’ (15 August 2023) <<https://mcr2030.undrr.org/resilience-roadmap>> accessed 5 November 2024.

‘Sustainability (World Commission on Environment and Development Definition) | Request PDF’ <https://www.researchgate.net/publication/303929235_Sustainability_World_Commission_on_Environment_and_Development_Definition> accessed 5 November 2024.

‘Technology | Department of Economic and Social Affairs’
<<https://sdgs.un.org/topics/technology>> accessed 4 November 2024.

‘The Importance Of Technology In Community Resilience’ (*FasterCapital*)
<<https://fastercapital.com/keyword/the-importance-of-technology-in-community-resilience.html>> accessed 5 November 2024.

‘The Role of Technology in Enhancing Community Resilience Initiatives’ (*FasterCapital*) <<https://fastercapital.com/content/The-Role-of-Technology-in-Enhancing-Community-Resilience-Initiatives.html>> accessed 4 November 2024.

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability: (2024) *Journal of cmsd Volume 11(5)*
Hon. Prof. Kariuki Muigua

‘The Role of Technology in Enhancing Community Resilience to Climate Change and Natural Disasters. - Consensus Academic Search Engine’
<<https://consensus.app/questions/role-technology-enhancing-community-resilience-climate/>> accessed 4 November 2024.

‘UNDP Digital Guides - Livelihoods and Economic Recovery’
<<https://digitalguides.undp.org/guide/livelihoods-and-economic-recovery>>
accessed 5 November 2024.

‘Widening Digital Gap between Developed, Developing States Threatening to Exclude World’s Poorest from Next Industrial Revolution, Speakers Tell Second Committee | Meetings Coverage and Press Releases’
<<https://press.un.org/en/2023/gaef3587.doc.htm>> accessed 5 November 2024.

Aker JC, ‘Chapter 8. Using Digital Technology for Public Service Provision in Developing Countries’, *Digital Revolutions in Public Finance* (International Monetary Fund)
<<https://www.elibrary.imf.org/display/book/9781484315224/ch008.xml>>
accessed 5 November 2024.

Alibašić H, *Strategic Resilience and Sustainability Planning: Management Strategies for Sustainable and Climate-Resilient Communities and Organizations* (2022).

Aragao A, Jacobs S and Cliquet A, ‘What’s Law Got to Do with It? Why Environmental Justice Is Essential to Ecosystem Service Valuation’ (2016) 22 *Ecosystem Services*.

Argyroudis SA and others, ‘Digital Technologies Can Enhance Climate Resilience of Critical Infrastructure’ (2022) 35 *Climate Risk Management* 100387.

Asheim GB and others, ‘The Measurement of Resilience’ (2020) 189 *Journal of Economic Theory* 105104.

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability: (2024) *Journal of cmsd Volume 11(5)*
Hon. Prof. Kariuki Muigua

Baraldo M and Di Giuseppantonio Di Franco P, 'Place-Centred Emerging Technologies for Disaster Management: A Scoping Review' (2024) 112 *International Journal of Disaster Risk Reduction* 104782.

Beunen R, Patterson J and Van Assche K, 'Governing for Resilience: The Role of Institutional Work' (2017) 28 *Current Opinion in Environmental Sustainability* 10.

Bhaduri D and others, 'A Review on Effective Soil Health Bio-Indicators for Ecosystem Restoration and Sustainability' (2022) 13 *Frontiers in Microbiology* <<https://www.frontiersin.org/journals/microbiology/articles/10.3389/fmicb.2022.938481/full>> accessed 5 November 2024.

Bhambri P and Kautish S, 'Technological Advancements in Promoting Ecosystem Health' in Walter Leal Filho and others (eds), *Digital Technologies to Implement the UN Sustainable Development Goals* (Springer Nature Switzerland 2024) <https://doi.org/10.1007/978-3-031-68427-2_21> accessed 5 November 2024.

Bruckler M and others, 'Review of Metrics to Assess Resilience Capacities and Actions for Supply Chain Resilience' (2024) 192 *Computers & Industrial Engineering* 110176.

Butler CD and Soskolne CL, 'Ecosystems, Stable and Sustainable' in Marc D Gellman and J Rick Turner (eds), *Encyclopedia of Behavioral Medicine* (Springer 2013) <https://doi.org/10.1007/978-1-4419-1005-9_1394> accessed 5 November 2024.

Calderón-Argelich A and others, 'Tracing and Building up Environmental Justice Considerations in the Urban Ecosystem Service Literature: A Systematic Review' (2021) 214 *Landscape and Urban Planning* 104130.

Campbell B and others, 'Assessing the Performance of Natural Resource Systems' (2001) 5 *Conservation Ecology*

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability: (2024) Journal of cmsd Volume 11(5)
Hon. Prof. Kariuki Muigua

<<https://www.ecologyandsociety.org/vol5/iss2/art22/>> accessed 5 November 2024.

Cardoso M and others, 'Following a Step by Step Development of a Resilience Action Plan' (2020) 12 Sustainability 9017.

Carlson J and others, *Resilience: Theory and Application* (2012); Carmen E and others, 'Building Community Resilience in a Context of Climate Change: The Role of Social Capital' (2022) 51 Ambio 1371.

Castañer X and Oliveira N, 'Collaboration, Coordination, and Cooperation Among Organizations: Establishing the Distinctive Meanings of These Terms Through a Systematic Literature Review' (2020) 46 Journal of Management 965.

Chaplin-Kramer R and others, 'Integrated Modeling of Nature's Role in Human Well-Being: A Research Agenda' (2024) 88 Global Environmental Change 102891.

Costanza, Robert, and Michael Mageau. "What is a healthy ecosystem?" *Aquatic ecology* 33 (1999): 105-115.

Daniel AD and Fernandes J, 'Promotion of Community Resilience: Do Citizens Have a Role to Play?' (2024) 29 Local Environment 987
<<https://www.tandfonline.com/doi/full/10.1080/13549839.2024.2345621>> accessed 4 November 2024.

Danley B and Widmark C, 'Evaluating Conceptual Definitions of Ecosystem Services and Their Implications' (2016) 126 Ecological Economics 132.

Dejene S, 'Impact of Climate Change on Biodiversity and Associated Key Ecosystem Services in Africa: A Systematic Review' (2018) 4 Ecosystem Health and Sustainability 225.

Dennehy D and others, 'Technology and Analytics for Global Development:

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability: (2024) Journal of cmsd Volume 11(5)
Hon. Prof. Kariuki Muigua

Transforming Agriculture, Empowering Sustainable Livelihoods, and Ensuring Planetary Well-Being' (2024) 43 IEEE Technology and Society Magazine 44.

Development Goals', *The Cradle of Knowledge: African Journal of Educational and Social Science Research*, Volume 8, No.1, 2020 ISSN 2304-2885-p, 2617-7315e.

Dodman D, Diep L and Colenbrander S, *Resilience and Resource Efficiency in Cities* (2017).

Elkady S, Hernantes J and Labaka L, 'Towards a Resilient Community: A Decision Support Framework for Prioritizing Stakeholders' Interaction Areas' (2023) 237 Reliability Engineering & System Safety 109358.

Ellis EC, Pascual U and Mertz O, 'Ecosystem Services and Nature's Contribution to People: Negotiating Diverse Values and Trade-Offs in Land Systems' (2019) 38 Current Opinion in Environmental Sustainability 86.

Fu Q and Zhang X, 'Promoting Community Resilience through Disaster Education: Review of Community-Based Interventions with a Focus on Teacher Resilience and Well-Being' (2024) 19 PLOS ONE e0296393.

Gervas E. Assey, 'The Role of Science, Technology and Innovation in Implementation of Sustainable.

Giroto CD and others, 'A Critical Review of Digital Technology Innovations for Early Warning of Water-Related Disease Outbreaks Associated with Climatic Hazards' (2024) 100 International Journal of Disaster Risk Reduction 104151.

Hajian M and Kashani S, 'Evolution of the Concept of Sustainability. From Brundtland Report to Sustainable Development Goals' (2021).

Haque CE, Khan SA and Choudhury M, 'Role of Multi-Level Institutions in Facilitating Innovation and Adaptation Technologies for Reducing Climate Risk

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability: (2024) Journal of cmsd Volume 11(5)
Hon. Prof. Kariuki Muigua

and Impact: Evidence from Coastal Communities of Bangladesh' (2024) 111 International Journal of Disaster Risk Reduction 104669.

Hoffmann R and Muttarak R, 'Learn from the Past, Prepare for the Future: Impacts of Education and Experience on Disaster Preparedness in the Philippines and Thailand' (2017) 96 World Development 32.

Huntsinger L and Oviedo J, 'Ecosystem Services Are Social-Ecological Services in a Traditional Pastoral System: The Case of California's Mediterranean Rangelands' (2014) 19 Ecology and Society 8.

Jensen O and Ong C, 'Collaborative Action for Community Resilience to Climate Risks: Opportunities and Barriers' (2020) 12 Sustainability 3413.

Kates, Robert W. "Readings in sustainability science and technology." *CID Working Paper Series* (2010).

King AC and others, 'Leveraging Citizen Science and Information Technology for Population Physical Activity Promotion' (2016) 1 Translational journal of the American College of Sports Medicine 30.

Kronenberg J, 'Environmental Impacts of the Use of Ecosystem Services: Case Study of Birdwatching' (2014) 54 Environmental Management 617.

Langemeyer J and others, 'Ecosystem Services Justice: The Emergence of a Critical Research Field' (2024) 69 Ecosystem Services 101655.

Law E and others, 'The Science of Citizen Science: Theories, Methodologies and Platforms', *Companion of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing* (Association for Computing Machinery 2017) <<https://doi.org/10.1145/3022198.3022652>> accessed 4 November 2024.

Embracing Science and Technology for Ecosystem Health, (2024) Journal of cmsd Volume 11(5) Community Resilience and Sustainability:
Hon. Prof. Kariuki Muigua

Lele S and others, 'Ecosystem Services: Origins, Contributions, Pitfalls, and Alternatives' (2013) 11 Conservation and Society 343.

Lu Y and others, 'Ecosystem Health towards Sustainability' (2015) 1 Ecosystem Health and Sustainability 1 <<https://spj.science.org/doi/10.1890/EHS14-0013.1>> accessed 4 November 2024.

Lutteken, A., and K. Hagedorn. "Concepts and Issues of Sustainability in Countries in Transition-an Institutional Concept of Sustainability as a Basis for the Network. Central and Eastern European Sustainable Agriculture Network." In *First Workshop Proceedings. Rome: REU Technical Series*, vol. 61, pp. 26-36. 1999.

Lv Y, Sarker MNI and Firdaus RBR, 'Disaster Resilience in Climate-Vulnerable Community Context: Conceptual Analysis' (2024) 158 Ecological Indicators 111527.

Ma C, Qirui C and Lv Y, "'One Community at a Time": Promoting Community Resilience in the Face of Natural Hazards and Public Health Challenges' (2023) 23 BMC Public Health 2510.

Magis K, 'Community Resilience: An Indicator of Social Sustainability' (2010) 23 Society & Natural Resources 401 <<http://www.tandfonline.com/doi/abs/10.1080/08941920903305674>> accessed 4 November 2024.

Martínez-Peláez R and others, 'Role of Digital Transformation for Achieving Sustainability: Mediated Role of Stakeholders, Key Capabilities, and Technology' (2023) 15 Sustainability 11221.

McAllister, Therese, Therese McAllister, Christopher Clavin, Bruce Ellingwood, John Van de Lindt, David R. Mizzen, and Francis M. Lavelle. *Data, information, and tools needed for community resilience planning and decision-making*. Washington, DC: US Department of Commerce, National Institute of Standards and

Technology, 2019.

Mehan A, 'The Role of Digital Technologies in Building Resilient Communities' (2023) 10 *Bhumi The Planning Research Journal* 33.

Morris J, Morris W and Bowen R, 'Implications of the Digital Divide on Rural SME Resilience' (2022) 89 *Journal of Rural Studies* 369.

Muttarak R and Lutz W, 'Is Education a Key to Reducing Vulnerability to Natural Disasters and Hence Unavoidable Climate Change?' (2014) 19 *Ecology and Society* <<https://www.jstor.org/stable/26269470>> accessed 5 November 2024.

Myers N, 'Information Sharing and Community Resilience: Toward a Whole Community Approach to Surveillance and Combatting the "Infodemic"' (2021) 13 *World Medical & Health Policy* 581.

Newman, Greg, Andrea Wiggins, Alycia Crall, Eric Graham, Sarah Newman, and Kevin Crowston, "The future of citizen science: emerging technologies and shifting paradigms." *Frontiers in Ecology and the Environment* 10, no. 6 (2012): 298-304.

Norris F and others, 'Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness' (2008) 41 *American journal of community psychology* 127.

Norton B, 'Sustainability, Human Welfare, and Ecosystem Health' (1992) 1 *Environmental Values* 97.

Olabi AG and others, 'Renewable Energy Systems: Comparisons, Challenges and Barriers, Sustainability Indicators, and the Contribution to UN Sustainable Development Goals' (2023) 20 *International Journal of Thermofluids* 100498.

Quaranta, Giovanni, Cristina Dalia, Luca Salvati, and Rosanna Salvia. "Building

resilience: an art-food hub to connect local communities." *Sustainability* 11, no. 24 (2019): 7169.

Renn O, 'Transdisciplinarity: Synthesis towards a Modular Approach' (2021) 130 *Futures* 102744.

Roberto, 'Public Participation in Scientific Programmes: Citizen Science for Biodiversity' (*International Science Council*, 6 January 2023) <<https://council.science/current/blog/public-participation-in-scientific-programmes-citizen-science-for-biodiversity/>> accessed 5 November 2024.

Samarakkody A, Amaratunga D and Haigh R, 'Technological Innovations for Enhancing Disaster Resilience in Smart Cities: A Comprehensive Urban Scholar's Analysis' (2023) 15 *Sustainability* 12036.

Sharifi A, 'A Critical Review of Selected Tools for Assessing Community Resilience' (2016) 69 *Ecological Indicators* 629.

Shaw R, Takeuchi Y and Rouhban B, 'Education, Capacity Building and Public Awareness for Disaster Reduction' [2009] *Landslides - Disaster Risk Reduction* 499.

Sintayehu DW, 'Impact of Climate Change on Biodiversity and Associated Key Ecosystem Services in Africa: A Systematic Review' (2018) 4 *Ecosystem Health and Sustainability* 225.

Tabish, S. A., and Nabil Syed. "Disaster preparedness: current trends and future directions." *Int J Sci Res* 4, no. 6 (2015): 227-52.

Taylor LA and others, 'Building Resilient Partnerships: How Businesses and Nonprofits Create the Capacity for Responsiveness' (2023) 3 *Frontiers in Health Services* 1155941.

Embracing Science and Technology for Ecosystem Health, (2024) Journal of cmsd Volume 11(5) Community Resilience and Sustainability:
Hon. Prof. Kariuki Muigua

Ungar M, 'Systemic Resilience: Principles and Processes for a Science of Change in Contexts of Adversity' (2018) 23 Ecology and Society <<https://www.jstor.org/stable/26796886>> accessed 5 November 2024.

United Nations Conference on Trade and Development., *The Role of Science, Technology and Innovation in Building Resilient Communities, Including through the Contribution of Citizen Science* ([Erscheinungsort nicht ermittelbar] United Nations 2020 2020).

Vaughan, E. and Henly-Shepard, S. (2018). Resilience Measurement Practical Guidance Note Series 1: Risk and Resilience Assessments. Produced by Mercy Corps as part of the Resilience Evaluation.

Wang Z and others, 'Biodiversity Conservation in the Context of Climate Change: Facing Challenges and Management Strategies' (2024) 937 Science of The Total Environment 173377.

Weiskopf SR and others, 'Climate Change Effects on Biodiversity, Ecosystems, Ecosystem Services, and Natural Resource Management in the United States' (2020) 733 Science of The Total Environment 137782.

Wirba AV, 'Corporate Social Responsibility (CSR): The Role of Government in Promoting CSR' (2024) 15 Journal of the Knowledge Economy 7428.

Xue Y and others, 'Multi-Sector Partnerships in the Urban Development Context: A Scoping Review' (2020) 268 Journal of Cleaner Production 122291.

Yang W and others, 'An Integrated Approach to Understanding the Linkages between Ecosystem Services and Human Well-Being' (2015) 1 Ecosystem Health and Sustainability 19.

You C and others, 'Trade-off and Synergistic of Ecosystem Services Supply and Demand Based on Socio-Ecological System (SES) in Typical Hilly Regions of

Embracing Science and Technology for Ecosystem Health, Community Resilience and Sustainability: **(2024) Journal of cmsd Volume 11(5)**
Hon. Prof. Kariuki Muigua

South China' (2024) 160 Ecological Indicators 111749.

Zabaniotou A, 'A Systemic Approach to Resilience and Ecological Sustainability during the COVID-19 Pandemic: Human, Societal, and Ecological Health as a System-Wide Emergent Property in the Anthropocene' (2020) 2 Global Transitions 116.

Zamiri M and Esmaeili A, 'Methods and Technologies for Supporting Knowledge Sharing within Learning Communities: A Systematic Literature Review' (2024) 14 Administrative Sciences 17

Lesson Study: Towards an Improved Instruction in Stem Education in Junior Secondary Schools in Kenya

**By: Dr Rodgers Cherui Cherui* Dr Simon Kipkenei† &
Dr. Winnie Waiyaki‡**

Abstract

For a long time, there has been a concern about the poor performance of Science Technology Engineering and Mathematics related subjects in both primary and secondary national examinations in Kenya's schools. Several programs and innovations have been put in place to address this shortcoming. Among the causes cited for poor performance is the poor instructional practices in the classrooms. Lesson Study as an innovation to teaching and learning, calls for teachers to work in collaboration, analysis, planning and continuous improvement of instructional practices through observations, evaluations of students' learning and goal setting and to design instructional practices that can improve the overall performance of STEM education. This paper therefore seeks to establish how Lesson Study as an innovation can be used to improve classroom instructional practices to overcome the poor learning outcomes by learners especially in Junior Secondary schools in the advent of the new Competency Based Curriculum (CBC) introduced in Kenya. The study is significant in that it should impress CBC creators of the need to improve the implementation of the design and how innovative classroom practices can be used to improve learning outcomes, including, overall performance of the national examinations especially the STEM related subjects. The paper is based on available secondary data, current practices and reviews of existing literature on the effectiveness of Lesson Study in enhancing learning outcomes in the classrooms. The study revealed that the use of Lesson Study has had positive results in various classrooms across the globe. By teachers planning and observing the lessons together, they can see their flaws and those of the learners and therefore re-plan the lessons for better learning outcomes. The study concluded that Lesson Study has a positive effect on the quality of

* Department of Education. Daystar University. Kenya

† Department of Educational Planning and Management; Kibabii University. Kenya

‡ Department of clinical Psychology; Daystar University, Kenya

teaching and learning especially in mathematics and science leading to great improvement in all STEM subjects. With the advent of the Competency Based Curriculum, the study recommended that the new education system fully incorporates this innovation as part of the implementation process to overcome the flaws experienced in the previous curriculum, to improve the overall performance of examination of the STEM subjects and more so enhance classroom interaction in Junior Secondary Schools in Kenya's education system.

Key Words: Lesson Study, STEM subjects, learner-centered pedagogy, teacher collaboration, collaborative teaching, Lesson reflection.

Introduction

The continuous advancement in Science, Technology, Engineering, and Mathematics (STEM) education calls for innovative teaching methods that foster critical thinking, problem-solving, and collaboration among learners. In Kenya, the Junior Secondary School Curriculum is undergoing transformation to enhance these skills, and one promising approach to improving instruction is the Lesson Study. Originating in Japan, Lesson Study is a professional development model that enables teachers to collaboratively plan, observe, and refine lessons. Lesson Study has its roots in the early 19th century in Japan, during the Meiji era (1868-1912). The era marked a time of rapid modernization, and Japanese educators sought ways to improve their teaching practices to meet the growing educational needs of the country (Lewis, 2002). However, it wasn't until the post-World War II period, particularly during the 1960s, that Lesson Study began to take shape in its current form, driven by the need for educational reforms in Japan (Yoshida, 1999).

The background of the study

In the Lesson Study model, teachers work in small groups to plan a single research lesson, observe how the lesson is implemented, and then discuss its outcomes to improve it (Fernandez & Yoshida, 2004). The process is cyclical, with the goal of refining teaching practices to ensure that lessons are more effective

and learner centered. One of the most significant contributions of Lesson Study to global education was through the dissemination of the findings from the Third International Mathematics and Science Study (TIMSS) in the 1990s. This study highlighted the effectiveness of Japanese teaching methods, sparking interest in Lesson Study in the United States and other countries (Stigler & Hiebert, 1999). In Greece, a study on Lesson Study was done and revealed that it contributes to mobilizing pre-service teachers, improving their performance and developing positive attitudes and beliefs of learners and trainers regarding its use in higher education (Kanellopoulou, 2019). There was a significant improvement in students' academic achievements and association with the practice of Lesson Study practice particularly at schools with low levels of academic achievements (Arya and Kosterelioglu, 2021). These authors posited that Lesson Study approach has a noteworthy effect on science learning at elementary level. The two studies also revealed that science teaching through Lesson Study increase comprehension and application skills of elementary students significantly.

Suhaili et al (2014) did a study in Brunei on the impact of Lesson Study on primary mathematics teachers' instructions. The study revealed that Lesson Study had a positive impact on teachers' instructions. Four pathways were identified in which teaching instructions had improved. The lesson plan development had broadened teachers' content and pedagogical knowledge, observation of the students learning helped teachers to be more conscious and sensitive towards students learning needs and difficulties, the development of teacher's self-confidence, teaching skills, questioning skills and classroom management skills and feedback from peers and knowledgeable others had made them more aware of the weakness and strengths on their own teaching. From the study, it can be noted that communication is open and honest in a Lesson Study and that there is a climate of trust. Team members must feel that they are able to share their ideas and opinions without inspiring defensiveness or reprisals. It will be difficult for members to learn from each other if they cannot be honest. Although the ability to share their views openly and honestly is important, members will be unlikely to do so if they fear their contributions will be ignored

or belittled. The balance between honesty and trust may not be easy to establish and maintain at first, but it is crucial to the team's work. Members are encouraged to both challenge and support one another. Team members do this by asking questions, building on each other's ideas, and respectfully disagreeing. They are expected to ask for clarification, explain their reasoning, and provide evidence to back up their assertions. Through reflection of teaching, teachers learn techniques to improve learner centered teaching methods and develop problem solving and critical thinking skills. The method aimed at strengthening teamwork among teachers and improving supervision among school managers (Jung et al., 2015).

STEM education places a strong emphasis on developing learners' ability to think critically, solve real-world problems, and work collaboratively. Traditional teaching methods, characterized by lecture-based instruction, often fall short in nurturing these skills. This is where Lesson Study becomes a critical tool. The collaborative nature of Lesson Study allows teachers to explore new instructional strategies, test them in the classroom, and adjust them based on student feedback and observations. In the context of STEM, teachers can experiment with inquiry-based learning, problem-solving approaches, and other innovative methods that align with STEM learning objectives (Cajkler et al., 2014). By focusing on a research lesson, STEM educators can collaboratively design lessons that integrate technology, engineering practices, and scientific inquiry, ensuring that learners develop not only subject knowledge but also essential skills like collaboration, creativity, and critical thinking (Saito et al., 2014). Group norms provide a set of shared expectations for how the team members will interact and support each other's learning. Group norms are also important because they enable teachers to learn together, adopt a research stance toward their practice, and build a sense of collective efficacy. As team members build their relationships and become accustomed to working together, they will be able to reflect on and deepen their sense of community and strengthen their belief in their capacity to improve student learning (Stepanek, Appel, Leong, Mangan, & Mitchell, 2007). Moreover, Lesson Study fosters a culture of continuous professional development, encouraging teachers to become lifelong learners.

Kenya's education system has undergone significant reforms under the Competency-Based Curriculum (CBC), which was introduced in 2017. The CBC emphasizes skill-based learning, and the development of competencies needed for the 21st century, particularly in areas such as STEM (Republic of Kenya, 2017). However, for these reforms to be successful, teachers need to adopt teaching methods that align with the new curriculum's goals, and Lesson Study offers a pathway for this transition. In Kenya, the need for improved STEM instruction is evident. The government has recognized that the country's economic development is closely tied to advancements in STEM fields. However, challenges such as large class sizes, limited resources, and inadequate teacher training have hindered effective STEM education in many schools. Lesson Study provides a framework for addressing these challenges. By working together, teachers can share resources, experiment with new teaching strategies, and collectively solve problems that arise in the classroom.

A few pilot projects in Kenya have demonstrated the potential of Lesson Study to improve teaching practices. For instance, a project funded by the Japan International Cooperation Agency (JICA) in collaboration with Kenya's Ministry of Education has introduced Lesson Study in select schools, focusing on mathematics and science education (JICA, 2020). Teachers involved in the project reported improvements in student engagement, a better understanding of difficult concepts, and greater confidence in their teaching practices. The collaborative nature of Lesson Study helped teachers overcome the challenges they faced individually. The use of Lesson Study in STEM education encourages the adoption of student-centered teaching methods that promote inquiry and exploration. Teachers can reflect on their practices, identify areas of improvement, and receive constructive feedback from their peers. This reflective practice ensures that lessons are continuously refined to meet the diverse needs of learners.

In Kenyan junior secondary schools, where STEM education is still developing, Lesson Study can significantly enhance the quality of instruction. By allowing

teachers to focus on specific problems, such as how to introduce difficult scientific concepts or how to integrate practical engineering tasks into the curriculum, they can devise solutions that are context-specific and tailored to their students' needs. Additionally, Lesson Study supports the professional development of teachers, enabling them to stay up to date with the latest trends and best practices in STEM education. Moreover, the collaborative nature of Lesson Study promotes a culture of shared responsibility among teachers. Instead of working in isolation, teachers come together to develop strategies that work for their students. This approach not only improves teaching practices but also fosters a sense of community and support among teachers.

Purpose of the study

The purpose for this study was to examine the role of Lesson Study in improving class instruction in STEM subject in Junior Secondary Schools in Kenya.

Objective of the study

The objective of this study was to advance Lesson Study for better lesson delivery towards improved learning outcomes in STEM subjects in Junior Secondary Schools in Kenya.

Literature review

Literature review examines several studies carried out in countries implementing Lesson Studies and the level of success and challenges encountered in the implementation process. STEM (Science, Technology, Engineering, and Mathematics) education in Kenya has gained significant attention in recent years, particularly at the junior secondary school level, where the demand for improved teaching methodologies is high. One innovation increasingly being adopted in STEM instruction is the "Lesson Study." This method, originating in Japan, focuses on teacher collaboration to refine instructional practices and student understanding. The implementation of Lesson Study in Kenya is still at its nascent stage, but it holds great potential for transforming classroom instruction in Junior Secondary Schools.

Adoption of Lesson Study as an innovation in the classroom

To learn from the Lesson Study process, team members must be willing to collectively examine their practice, acknowledge challenges, and seek out areas for improvement. Lesson Study is a cyclical process that involves teachers planning a lesson collaboratively, teaching it, observing the lesson in action, and reflecting on its effectiveness. As Lewis and Tsuchida (1998) describe, this iterative process promotes continuous professional development for teachers, improving their instructional strategies. Its primary goal is to enhance learning outcomes by encouraging teachers to work together to refine their teaching practices. Research suggests that Lesson Study fosters a deeper understanding of content, pedagogy, and students' learning processes (Dudley, 2011).

The adoption of Lesson Study as an innovation in the classroom has been slow but promising in many countries, including Kenya. According to Perry and Lewis (2009), one of the primary reasons for its success is its collaborative nature, which allows teachers to share expertise, critique each other constructively, and develop teaching strategies that align with students' needs. In Kenya, the introduction of Competency-Based Curriculum (CBC) has necessitated a shift from traditional teacher-centered approaches to more student-centered ones, making Lesson Study particularly relevant (Kisaka & Ogada, 2020). One of the key features of Lesson Study is its emphasis on teacher collaboration. Teachers work together to plan, execute, and analyze lessons, which not only enhances their teaching strategies but also fosters a culture of continuous professional development. In the context of Kenyan Junior Secondary Schools, where many STEM teachers lack adequate pedagogical training, Lesson Study can bridge the gap by creating opportunities for peer learning and mentorship (Wangeleja, 2016).

Adopting Lesson Study as a classroom innovation also directly benefits students. The approach encourages teachers to focus on student engagement, assess how students interact with STEM content, and adjust their teaching strategies accordingly. Studies in other contexts, such as those conducted in the United

States and Japan, have shown that Lesson Study can improve students' critical thinking, problem-solving skills, and conceptual understanding in STEM subjects (Fernandez & Yoshida, 2004). For Kenyan students, this would be particularly beneficial, given the national focus on increasing STEM participation and achievement. Despite its potential, there are several challenges associated with the adoption of Lesson Study in Kenya. First, there is a lack of sufficient training for teachers in how to effectively implement this approach (Ouko & Karani, 2021). Second, many schools face resource constraints, including limited access to instructional materials and a high student-to-teacher ratio, which can hinder effective collaboration and lesson observation. Finally, the hierarchical nature of many school systems in Kenya may discourage the open and constructive dialogue that Lesson Study relies upon (Kisaka & Ogada, 2020).

Methodology

This study was purely a paper review from refereed journals in Google scholars, Scopus and Research Gate. The journals selected were mainly on Lesson Study, and education curriculum innovations. The sampling procedure was derived by using research articles containing key word "Lesson Study" where a total of 30 papers from different countries where Lesson Study had been implemented by 2023 formed the greater sample. Ten papers were purposively used in each category of the journals. The journals were selected depending on the year of publication. It was clear that most countries who adopted Lesson Study were being trained by JICA using the education approach borrowed from Japan. Lesson Study adopted different names in different countries, but implementation was similar.

Findings of the study

In Kenya, the Center of Mathematics, Science and Technology Education in Africa CEMASTEIA in collaboration with JICA introduced the school-based Lesson Study in its secondary INSET program in 2011. Lesson Study, a teacher-

driven model for improving instructional practice through collaboration, has gained momentum as an innovative approach in Kenya's Junior Secondary Schools, particularly in STEM education. Lesson Study provides a structured platform for teachers to collaboratively plan, observe, and critique their lessons. It enhances professional development by encouraging reflective practice and peer feedback. Studies in Kenya show that teachers who engage in Lesson Study are more likely to improve their teaching methods and increase student engagement in STEM subjects. The collaborative nature of Lesson Study fosters a community of practice among teachers, which is essential for continuous improvement in instructional methods (CEMASTEA, 2017; UNESCO, 2021).

Kenya's shift to the CBC, which emphasizes skills, creativity, and learner-centered teaching, aligns with the goals of Lesson Study. Lesson Study complements the CBC by allowing teachers to adapt their teaching strategies to the needs of learners, focusing on critical thinking and problem-solving. Research highlights that Lesson Study has been particularly effective in STEM education, where the CBC's emphasis on practical skills is paramount (UNESCO, 2021). Lesson Study has proven to be a valuable tool in improving STEM instruction. It encourages teachers to design lessons that are student-centered and inquiry-based, which are key to engaging students in STEM learning. CEMASTEAs reports that teachers who participate in Lesson Study are more adept at implementing STEM-focused instructional strategies, improving students' comprehension of complex concepts in subjects like mathematics and science (CEMASTEA, 2017).

Successful implementation of Lesson Study depends significantly on school leadership. Principals who support collaborative professional development initiatives are crucial in fostering an environment conducive to Lesson Study. Their involvement ensures that teachers have the necessary resources and time to engage in meaningful collaboration. In schools where leadership actively supports the Lesson Study process, there is a noticeable improvement in teaching quality and student outcomes (Chiira, 2021). Despite its potential, Lesson Study

faces challenges in Kenya's junior secondary schools. Many schools lack sufficient resources, including infrastructure and teaching materials, which are critical for effective STEM instruction. Additionally, teachers need further training to fully integrate Lesson Study into their practice, particularly in the context of the CBC. The scarcity of well-trained STEM teachers also limits the potential of this innovation in some regions (CEMASTEIA, 2017; UNESCO, 2021).

Conclusion

Lesson Study represents a powerful tool for improving STEM education in Kenya's Junior Secondary Schools. As the country continues to implement the CBC and emphasize the importance of STEM skills, Lesson Study provides a structured approach for teachers to collaborate, reflect on their teaching practices, and continuously improve their lessons. While challenges such as limited resources and large class sizes remain, the potential of Lesson Study to transform STEM education is evident. As more schools adopt this approach, Kenya stands to benefit from a generation of learners who are well-equipped with the critical thinking, problem-solving, and collaborative skills needed for the future. The adoption of Lesson Study in Kenyan Junior Secondary Schools holds great promise for improving instruction in STEM education. By fostering teacher collaboration, promoting continuous professional development, and focusing on student-centered learning, this approach can significantly enhance both teaching practices and student outcomes. However, for Lesson Study to be successfully integrated into Kenyan classrooms, there must be adequate teacher training, policy support, and resources. Further research and pilot programs could explore how this innovation can be adapted to meet the unique needs of Kenyan schools.

Recommendations

The study recommended that policy makers develop strategic plans to promote the use of Lesson Study as a school based professional development initiative. With the advent of the competency based curriculum in Kenya, the study also recommended that the new education system fully incorporates this innovation as part of the implementation so as to overcome the flaws experienced in the previous curriculum, to improve the overall performance of examination of the STEM subjects and more so enhance classroom

*Lesson Study: Towards an Improved Instruction in Stem
Education in Junior Secondary Schools in Kenya:*

(2024) Journal of cmsd Volume 11(5)

Dr Rodgers Cherui, Dr Simon Kipkenei & Dr. Winnie Waiyaki

interaction in the Junior Secondary Schools in Kenya's education system. The study recommended the endorsement of Lesson Study approach in teaching of science by inculcating it in teacher training curriculum.

References

Cajkler, W., Wood, P., Norton, J., & Pedder, D. (2014). Lesson Study: Towards a collaborative approach to

learning in Initial Teacher Education? *Cambridge Journal of Education*, 44(4), 465-487.

Chiira, F. (2021). "Principals' Instructional Leadership Role and Lesson Study Program Implementation in Public Secondary Schools in Kajiado County, Kenya

Dudley, P. (2011). Lesson Study: A handbook. Department for Education.

Fernandez, C., & Yoshida, M. (2004). Lesson Study: A Japanese approach to improving mathematics teaching and learning. Lawrence Erlbaum Associates.

Kisaka, M. O., & Ogada, H. (2020). Reforms in STEM education in Kenya: Impacts of the competency-based curriculum. *Journal of Education and Practice*, 11(10), 33-40.

Lewis, C., & Tsuchida, I. (1998). A lesson is like a swiftly flowing river: How research lessons improve Japanese education. *American Educator*, 22(4), 12-17.

Lewis, C. (2002). Lesson Study: A handbook of teacher-led instructional change. research for better schools, inc. Republic of Kenya. (2017). Basic Education Curriculum Framework. Nairobi: Kenya Institute of Curriculum Development.

Ouko, C., & Karani, A. (2021). Challenges facing the implementation of Lesson Study in Kenya: A case study of selected counties. *International Journal of Educational Studies*, 14(2), 22-30.

*Lesson Study: Towards an Improved Instruction in Stem
Education in Junior Secondary Schools in Kenya:*

(2024) Journal of cmsd Volume 11(5)

Dr Rodgers Cherui, Dr Simon Kipkenei & Dr. Winnie Waiyaki

Perry, R. R., & Lewis, C. (2009). What is successful adaptation of Lesson Study in the U.S.? *Journal of*

Educational Change, 10(4), 365-391.

Saito, E., Hawe, P., Hadiprawiroc, S., & Empedocle, S. (2014). Lesson Study for Learning Community: A

theoretical approach towards international collaboration. *International Review of Education*, 60(2), 199-217.

Stigler, J. W., & Hiebert, J. (1999). *The Teaching Gap: Best Ideas from the World's Teachers for Improving*

Education in the Classroom. The Free Press.

UNESCO (2021). *Competency-Based Curriculum (CBC) Implementation and Transition to Junior Secondary*

Schools in Kenya.

Wangeleja, M. (2016). Teacher development in STEM education in East Africa. *African Journal of Educational*

Research, 5(2), 45-57.

Yoshida, M. (1999). *Lesson Study: A Case Study of Japanese Elementary School Teachers' Professional*

Development through Collaborative Lesson Research. Columbia University CEMASTE (2017).

Report on secondary school-based inset through Lesson Study 2016. Nairobi: CEMASTE.

Book Review: Towards Human Rights and Prosperity for All

By: Mwati Muriithi*

Title: Towards Human Rights and Prosperity for All
Author: Hon. Prof. Kariuki Muigua, Ph.D; FCIArb; Ch.Arb; OGW
Number of Pages: 640
Publisher: Glenwood Publishers Limited, Nairobi: Kenya (2024)
ISBN: 978-9966-046- 41-3

This book is a collection of papers covering Environmental Governance, Access to Justice, Conflict Management, Climate Change, Human Rights and Rule of Law under the theme ‘Towards Human Rights and Prosperity for All.’

The papers in this book delve into discussions on the said theme: They include Achieving Sustainability for a green Tomorrow; Towards Human Rights and prosperity for all; Eliminating Racism for Peace, Harmony and Prosperity; Mobilizing the youth for climate change; Enhancing Environmentalism for Green Growth; Realising the Human Right to Water and Sanitation; Promoting Environmental Rule of Law in Africa; Prospects and Challenges; Appraising the Role of Culture in Sustainable Development.

The book is dedicated to the idea that Human Rights should be respected and upheld at all time and that Human dignity is something we should guard and ensure always and to the idea that achieving prosperity for all is possible.

The book is aimed at researchers, students and academics who have an interest in working towards Human Rights and Prosperity for All.

The author, Hon. Prof. Kariuki Muigua Ph.D; FCIArb; OGW; C. Arb, is a Member

* LLB (Hons) KU; Dip. In Law (KSL); ACIArb; CPM (MTI); Advocate of the High Court of Kenya; Legal Researcher. Email: advocatemwati@gmail.com

of the Permanent Court of Arbitration (PCA) nominated by the Republic of Kenya and served as a Member of the National Environment Tribunal. He is a distinguished law scholar, Environmental Consultant, an Accredited Mediator and a Chartered Arbitrator. He has widespread training and experience in both international and national commercial arbitration and mediation. He has received numerous awards and honours due to his exemplary work in academia and Alternative Dispute Resolution.

He was appointed as a member of the Protem Committee for the Asian International Arbitration Centre (Malaysia) (AIAC) Court of Arbitration. Chambers and Partners Global Guide 2024 ranked him in Band 1 of Dispute Resolution (Arbitrators), the ranking which recognizes the Top 6 Arbitrators in Kenya noting that he is “highly recommended as a leading lawyer”. He was awarded the ‘Academic Champion of ADR’ at the inaugural Women in ADR Awards 2024. He was also awarded the Outstanding Mentor Award by his mentees in recognition of his guidance, care and support. He was recognized and awarded for his role as the Chartered Institute of Arbitrators (CIArb) Africa Trustee from 2019 to 2022 by CIArb Kenya Branch at the CIArb Kenya Branch ADR Excellence Awards 2022. Chambers and Partners Global Guide 2023 ranked him in Band 1 of Dispute Resolution (Arbitrators), the ranking which recognizes the Top 6 Arbitrators in Kenya noting that he is “highly recommended as a leading lawyer”. His book, *Settling Disputes through Arbitration in Kenya*, 4th Edition; Glenwood publishers 2022, was awarded the Publication of the Year Award 2022 by CIArb Kenya Branch at the CIArb Kenya Branch ADR Excellence Awards 2022. He is the winner of ADR Practitioner of the Year Award at the AfAA Awards 2022. He is also the winner of the African Arbitrator of the Year 2022 award at the 3rd African Arbitration Awards held at Kigali Rwanda beating other competitors from Egypt, Mauritius, Ethiopia, Nigeria and Kenya. In 2022, Chambers and Partners ranked him in Band 1 of Dispute Resolution (Arbitrators) noting that “He has been involved in several ground-breaking arbitrations,” “has an astute understanding of arbitration” and “is respected for litigation.” He was awarded the Inaugural CIArb (Kenya Branch) ADR Lifetime Achievement

Award 2021 as well as the ADR Publication of the Year Award 2021 by the Chartered Institute of Arbitrators (Kenya Branch). He also received the ADR Practitioner of the Year Award 2021 by the Law Society of Kenya, Nairobi Branch at the Nairobi Legal Awards. He is a recipient of the 8th C.B. Madan Prize of 2020 for commitment and outstanding scholarly contribution to constitutionalism and the rule of law in Kenya.

Hon. Prof. Muigua PhD. has on various occasions been appointed by leading arbitral institutions including the Chartered Institute of Arbitrators (CI Arb-Kenya), the Nairobi Centre for International Arbitration (NCIA), the International Chamber of Commerce (ICC) and the London Court of International Arbitration (LCIA) among other institutions, as both a sole arbitrator and a member of an arbitral tribunal in arbitrations involving commercial disputes.

Hon. Prof. Muigua PhD. also serves as the Editor in Chief of three leading peer reviewed journals in East Africa, the *Alternative Dispute Resolution Journal*, the *Journal of Conflict Management and Sustainable Development* and *Journal of ADR & Sustainability*.

Hon. Prof. Kariuki Muigua has demonstrated his prowess and sound understanding of Human Rights and prosperity. He posits that there is need to continually reflect on the theme of Human Rights and prosperity for all and critically examine where we are at the moment and how the situation can be improved for a better future.

Hon. Prof. Kariuki Muigua PhD; Ch.Arb; OGW offered the book for free download in his law firm Kariuki Muigua & Co. Advocates website in a quest to realize the key objective of its publication, promoting knowledge on Human Rights and Prosperity.

Management of Industrial Wastewater in Kenya: Case study of Mavoko

By: Catherine Sanitta Muttuku*

Abstract

The right to a clean and healthy environment is fundamental to a country's sustainable economic development and underpins various rights and freedoms. Effective industrial effluent management is crucial for protecting climate security and maintaining stable ecosystems. This requires a policy framework that addresses contemporary challenges. Fortunately, Kenya has established a comprehensive legal and institutional framework for managing industrial effluent. However, its effectiveness is undermined by several factors, including the dispersion of regulations across multiple legal instruments, institutional failures, corruption, insufficient awareness of technological advancements in effluent management, and inadequate implementation of industrial symbiosis practices.

This article examines Kenya's policy framework for industrial effluent management and suggests potential improvements. These include the creation of a unified policy instrument to consolidate existing regulations, enhancement of industrial symbiosis, better institutional coordination, and increased public awareness. Addressing these areas will strengthen the framework and contribute to a healthier environment and more sustainable economic development.

Key Phrases: Public participation; Rule of Law; Industrial Effluent; Environmental Impact Assessment, Sustainable development.

Introduction

Kenya stands out among Sub-Saharan African countries with its rapidly growing economy, driven by substantial investments in revitalized industries crucial for alleviating poverty.¹ However, it is imperative to ensure that this economic

* *Advocate, LLB (UoN), LLM (UoN) Environmental law*

¹Lucas Schmidt, *True progress for industrialization in Kenya*, (2020) para1<
<https://borgenproject.org/gigf/industrialization-in-kenya/>>accessed 15th July 2024.

development prioritizes sustainable environmental practices. This is because a clean and healthy environment is crucial for the enjoyment of fundamental rights and freedoms, including access to clean and safe drinking water, a sustainable standard of health, adequate housing, sufficient food, and reasonable sanitation standards.² The Constitution makes it a duty for the state and individuals to promote practices that protect the natural environment.³

This duty extends to the protection of both terrestrial and aquatic ecosystems, through various activities, including the management of industrial effluents.⁴ Fortunately, Kenya has legislations with explicit provisions on discharge of effluent including those encapsulated in the Water Act, Environmental Management and Coordination Act among other legal instruments discussed under part three of this article, which are aimed at ensuring proper management of industrial wastewater.

Despite this, concerns have emerged regarding the sustainability of these instruments. These concerns stem from the expectation that effective laws should address both current and future challenges comprehensively and practically. In essence, laws should be adaptable to contemporary issues and transformations.⁵ This paper asserts that existing laws adequately govern the management of industrial effluents and that the main challenge lies in their implementation due to the existence of multiple obstacles.

The perceived weakness in the implementation of the existing regulatory framework is evidenced by the fact that some stakeholders still circumvent the law and discharge untreated effluent containing heavy metals and other toxic

² The Constitution of Kenya 2010, Article 43.

³ Ibid, Article 69.

⁴ Ibid, Article 69 (1)(g).

⁵ The United Nations Environment Program (UNEP), Environmental Rule of Law. <<https://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law-0>> accessed 22nd October 2024.

substances directly into water resources such as the River Athi.⁶ Similarly, the significant water pollution observed in urban areas, attributed to inadequate wastewater management facilities, underscores the inadequate compliance with the legal framework by stakeholders.⁷ Some stakeholders have not implemented appropriate treatment measures, while others have failed to maintain their treatment facilities as mandated, thereby struggling to manage the increased volumes resulting from rapid industrial expansion.⁸

The increased stream and dam water pollution degrade water quality, which consequently jeopardizes both human access to clean and safe drinking water as well as the aquatic ecosystem.⁹ Additionally, this increases the likelihood of waterborne diseases and risks to public health, thus impacting livelihoods significantly.¹⁰ Moreover, it endangers natural biodiversity.¹¹

This article critically examines the sustainability of the current regulatory

⁶ Wahome Catherine, Muli Peter,....Momanyi Evans & Hassan Feisal, *Evaluation of Effluent Discharge from Steel Manufacturing Industries on the Proliferating Environmental Degradation in Nairobi Metropolitan in the Republic of Kenya* (2021) vol.9(9) Journal of Geoscience and Environment Protection. P198<
<https://www.scirp.org/journal/paperinformation?paperid=112330>> accessed 22nd October 2024.

⁷ Juliana Mutua, Angwata Evans & Stephen Anyango, *Effectiveness of sanitation policy instruments in Mavoko Municipality of Machakos County, Kenya* (2017) vol.3(1) Cogent Environmental Science. <
https://www.researchgate.net/publication/317628690_Effectiveness_of_sanitation_policy_instruments_in_Mavoko_Municipality_of_Machakos_County_Kenya> accessed 22nd October 2024.

⁸ Ibid.

⁹ Gete Zeleke & Endaweke Assegide, *Impacts of Surface Water Quality in the Awash River Basin, Ethiopia: A Systematic Review* (2022) vol.3, Water and Human Systems. <
<https://www.frontiersin.org/journals/water/articles/10.3389/frwa.2021.790900/full>> accessed 22nd October 2024.

¹⁰KEWASNET, Lets talk wastewater,<<https://kewasnet.co.ke/lets-talk-wastewater/#:~:text=A%20number%20of%20wastewater%20treatment,to%20expand%20the%20wastewater%20infrastructure.>>accessed 20th July 2024.

¹¹KEWASNET(n3).

framework by exploring wastewater management systems in Kenya, focusing specifically on Mavoko municipality in Machakos County as a key example. The paper progresses through six main sections. Section two analyzes the Mavoko case study, assessing the status and impacts of existing industrial wastewater management systems. Section three explores the regulatory framework governing industrial wastewater management in Kenya. Section four addresses the challenges associated with managing industrial effluents in the country. Section five proposes recommendations, while section six concludes.

The Mavoko

Mavoko, also known as Athi River, is a town located 25 km southeast of Nairobi, the capital city of Kenya, and serves as the administrative center for Mavoko Sub-County.¹² The town is renowned for its rapid industrial development,¹³ hosting over 50 industries including steel mills, cement plants, and chemical factories.¹⁴ According to scholars like Caleb Mireri, this rapid growth is attributed to several factors: strategic location, affordable land, abundant labour supply, robust transport and communication infrastructure, availability of raw materials, and strong market connections.¹⁵

There is no doubt that these industries produce large volumes of effluent, which

¹²Nyasanani Mbaka and Benson Osumba, *Muunganowa Wanavijiji: Focus on Athi River*, (2012) <<https://www.muungano.net/browseblogs/2012/04/24/focus-on-athi-river>>accessed 20th July 2024

¹³Un-Habitat, *Mavoko Urban Sector Profile*, (2006) p.4<<https://staging.unhabitat.org/pmss/getElectronicVersion.asp?nr=2789&alt=1>>accessed 20th July 2024.

¹⁴Mavoko municipality, <<https://machakosgovernment.co.ke/mavoko-municipality/>>accessed 21st July 2024.

¹⁵Caleb M.C Mireri , *Industrialization of Athi River Town*, (1992)p V-VI<http://erepository.uonbi.ac.ke/bitstream/handle/11295/65953/Mireri_Industrialization%20of%20Athi%20river%20town.pdf>accessed 21st July 2024.

if not well discharged can lead to serious degradation of environment.¹⁶ To prevent this, most of the industries in Mavoko often treat the effluent before discharging it into sewer systems. Others rely on recycling, which involves the utilization of treated wastewater for use in irrigation schemes and farms as well as for other industrial activities.¹⁷ This revamps water availability by limiting the pressure on potable water.¹⁸ Moreover, recycling of wastewater not only cuts-down the demand for water supply in industries for the various processes, but also reduces the potential impact of wastewater on the environment water.¹⁹

However, it is noted from previous reports that the treatment mechanisms, including the sewage treatment plant at Athi River's Export Processing Zone (EPZ), are ineffective because they cannot treat chemical waste like phosphorus and heavy metals like lead, mercury and selenium especially in the rainy season.²⁰ Furthermore, the industrial effluent treatment mechanisms are also relied upon by residential and commercial projects, which congest it and consequently making it to be less effective.²¹ In the same vein, this has caused

¹⁶Hamza Kyeyune, *Ugandan River dying from pollution* (National Environment Management Authority, 2022) < <https://www.aa.com.tr/en/africa/ugandan-river-dying-from-pollution/2533588> > accessed 21st July 2024

¹⁷Environmental Engineering, < <https://theconstructor.org/environmental-engg/recycling-of-wastewater/7001/> > accessed 22nd July 2024.

¹⁸ Mutua Juliana, Angwata Evans & Stephen Anyango, *Effectiveness of sanitation policy instruments in Mavoko Municipality of Machakos County, Kenya* (2017) vol.3(1) Cogent Environmental Science. P.22-23 < https://www.researchgate.net/publication/317628690_Effectiveness_of_sanitation_policy_instruments_in_Mavoko_Municipality_of_Machakos_County_Kenya > Accessed 22nd July 2024.

¹⁹Micronics Engineered Group (2022) < <https://leadiq.com/c/micronics-engineered-filtration-group/5a1d87bd24000240061ac31> > accessed 22nd July 2024.

²⁰ Nadir, S., Tole, M., Dharani, N., & Wafula, G. *Effectiveness of a Wastewater Treatment Plant located at EPZ in reducing Pollutants Discharged into River Athi, Kenya.* (2020)p7, < <https://www.semanticscholar.org/paper/5ff6cca23d05acb3a24d6f227c1a754b2317b7f1> > accessed 23rd July 2024.

²¹ Ibid

some industries to discharge raw effluent into River Athi.²² Aside from the system congestion, previous studies indicate that the treatment plant at the EPZ is not effectively reducing pollutants, particularly nitrates, phosphates, and heavy metals such as lead and mercury.²³

As a result, water quality degradation has increased. For example, in 2023, River Athi was reported as one of the most polluted water resources in Kenya, posing potential health risks to nearby residents due to chemicals discharged through industrial effluents, which can be transmitted through the food chain.²⁴ Furthermore, raw effluents often contain high rates of Chemical Oxygen Demand (COD) which escalates the osmotic potential of water and adjacent soil, hindering the survival of aquatic organisms.²⁵ Moreover, leakage or over flow of untreated wastewater into rivers can cause microbial contamination, which expose farmers, consumers and other people who contact water from River Athi, to the risk of getting gastrointestinal illness, cancer, skin irritation, ear, eye and nose infections and respiratory illness.²⁶

Therefore, it is imperative to urgently implement changes in Mavoko to address the situation. Key to this effort is ensuring that stakeholders and industrial owners strictly adhere to the established legal framework, including the policies discussed below.

²² Available at <<https://epzkenya.com/water-sewerage/>> accessed 23rd July 2024.

²³ Nadir, S., Tole, M., Dharani, N., & Wafula, G. *Effectiveness of a Wastewater Treatment Plant located at EPZ in reducing Pollutants Discharged into River Athi, Kenya.* (2020)p7,<<https://www.semanticscholar.org/paper/5ff6cca23d05acb3a24d6f227c1a754b2317b7f1>>accessed 23rd July 2024.

²⁴ Marry Wangari, Athi River, *Thwake Dam most polluted water bodies, MPs told* (Nation, 2023)<<https://nation.africa/kenya/news/athi-river-thwake-dam-most-polluted-water-bodies-mps-told-4346462>>accessed 25th July 2024.

²⁵ 'Strategic Environmental Assessment Study in the Master Plan for Development of the Kinanie Leather Industrial Park' (November 2015) p.118

²⁶ John Omung'ala Aywa, '*Suitability of Athi River water for irrigation within Athi river town and its environs*' (2017)7

The Regulatory Framework for Industrial Wastewater Management in Kenya **Legal and Institutional governance**

As highlighted in previous sections of this paper, wastewater management is a pressing issue given that water is essential for the survival of life. Bearing this in mind, Kenya put in place comprehensive framework for the protection of the environment through several ways including proper discharge of industrial effluent. The framework includes both international and domestic legal instruments including the Stockholm Declaration of 1972, Kyoto Protocol, the Constitution, Environmental Management and Coordination Act, the Water Act and the Sustainable management Act of 2022.²⁷

The Constitution espouses the need to protect the environment as the foundational basis for the protection of fundamental rights and freedoms including the right to a clean and healthy environment,²⁸ right to clean and safe drinking water in adequate quantities, among others. The Constitution, further, calls for the involvement of the citizens in environment safety actions through public participation and goes on to provide for there to be public participation on environmental issues.²⁹ Worth noting is that the right to a clean and healthy environment,³⁰ is directly tied to the State obligations with regard to the environment.³¹ This was stated in *Adrian Kamotho Njenga v Council of Governors & 3 others*,³² where the court averred that the right under Article 42 to have the environment protected is guaranteed through the measures provided under Article 69 with the right extending to the obligations encapsulated under Article 70 of the Constitution.³³ Where a person alleges that his or her right under Article 42 is being or is likely to be denied or violated, infringed or threatened; they have

²⁷ Muigua K., *Nurturing our Environment for Sustainable Development*, Glenwood Publishers, 2016. pg 5: See also; Stockholm Declaration 1872

²⁸ Constitution of Kenya 2010, Article 42

²⁹ Constitution of Kenya 2010, Article 10 2(a)

³⁰ Article 42

³¹ Article 69

³² [2020] eKLR

³³ As above Para. 18

a right to seek redress under Article 70 and as held in *KM & 9 others v Attorney General & 7 others*.³⁴ The Constitution further establishes the Environment and Land Court,³⁵ with the jurisdiction to adjudicate on matters that relate to the environment and land matters.³⁶

Pursuant to Article 72 of the Constitution, there are several legislations regulating the protection of the environment. For instance, the **Environmental Management and Coordination Act of 1999** establishes an effective regulatory and administrative approach to environmental management.³⁷ It establishes several institutions to deal with environmental matters. Among the notable institutions is the National Environmental Management Authority (NEMA), which is established under Section 7 of EMCA to supervise and coordinate all matters relating to the environment.³⁸ This includes overseeing the undertaking of the Environmental Impact Assessments (EIA) and issuing of licenses for projects as discussed in *Kibos Distillers & 4 others v Benson Ambuti Adegga & 3 others*.³⁹

The object of assessments and issuance of licenses stems from Part VI of the EMCA which gives provision for the need of an EIA to be conducted and a license to be issued before the project commences, lack of which a project can be invalidated. In *Cortec Mining Kenya Ltd v Cabinet Secretary Ministry of Mining & 9 others*,⁴⁰ the trial court emphasized on the need for the EIA licensing to be issued for projects that are likely to affect the environment.⁴¹ The process of conducting EIA should consider the need for adequate public participation pursuant to Article 10 of the Constitution. Public involvement is crucial to this process, failure to which might subject the EIA license to challenge before a court of law. This

³⁴ [2020]eKLR para 134

³⁵ Constitution of Kenya 2010, Article 162(2)

³⁶ Environment and Land Court Act No. 26 of 2015; Part III

³⁷ EMCA 1999. Preamble

³⁸ EMCA 1999, Section 9(1)

³⁹ Civil Appeal No. 153 of 2019

⁴⁰ Civil Appeal No. 105 of 2015

⁴¹ As above Para 14(II)

was enforced in the case of *Abdallah, Chairman, Donholm phase 5 Residents' Association v. Director General NEMA & another*.⁴²

EIA licensing is attributed to NEMA which is mandated to conduct routine Environmental Audits and monitoring on all activities that pose harm to the environment.⁴³ In addition to the EIA requirements, the Act also provides for the need to have effluent discharge licenses (EDLs) which primarily deal with the regulation of the discharge of effluents into the environment including into water resources.⁴⁴

There is also the establishment of the County Environmental Complaints Committees mandated to manage the environment at the county levels including to develop county environmental plans.⁴⁵

EMCA also establishes the National Environment Tribunal (NET) and the National Environmental Complaints Committee (NECC) to handle environment related disputes. NECC deals with investigations on allegations or complaints against the Authority or a person with regards to environmental conditions.⁴⁶ Meanwhile NET primarily deals with grievances regarding the issuance of licenses by NEMA.⁴⁷

The other important instrument is the **Water Act No 43 of 2016** which regulates the development of water resources.⁴⁸ The Act primarily provides for further enforcement of the right to clean and safe drinking water,⁴⁹ as envisioned under

⁴²Tribunal appeal no NET/38/2009 para 31&32.

⁴³ EMCA 1999. Part VII

⁴⁴ EMCA 1999. Section 75

⁴⁵ EMCA 1999. Section 30

⁴⁶ As above Section 31

⁴⁷ As above Section 125

⁴⁸ Water Act No 43 of 2016; Preamble

⁴⁹ As above Section 63, See also; Article 43(1)(d)

the Constitution.⁵⁰ This right is intertwined with the right to a clean and healthy environment under the Constitution, therefore both should be enforced in conformity with the Constitution as held in *Isaac Kipyego Cherop v State Ministry of Water & 142 others*.⁵¹

This Act establishes the Water Regulatory Authority (WRA) under Section 11, it further, insists on the EDL issued by NEMA for effluents being discharged into water resources. Under this Act it is also an operational condition for there to be an EIA license issued as reiterated in *Republic v National Environmental Management Authority (NEMA) & 2 Others; Ex Parte Misty Mountain Lodge Ltd & another*.⁵² In addition to the WRA, the Act establishes the Water Tribunal,⁵³ with the jurisdiction to hear and determine disputes concerning water resources and appeals on decisions by the Authority or the concerned Cabinet Secretary.⁵⁴

There is also the **Sustainable Waste Management Act No. 31 of 2022** which was enacted to guarantee and support the legislation of the State in the management of waste. The Act specifically seeks to ensure the waste management system is aligned towards enforcement of Article 42 on the right to a clean and healthy environment.⁵⁵ The principal body that governs the implementation of the Act is NEMA as established under EMCA. The Act provides for among others, the segregation of wastes into hazardous and non-hazardous,⁵⁶ and for the former to be handled in a manner prescribed under EMCA.⁵⁷ For effective waste management, the Act requires corporate entities to create three-year waste management strategies and to provide NEMA with detailed yearly accounts on

⁵⁰ Constitution of Kenya 2010, Article 42

⁵¹ (2017) eKLR

⁵² (Judicial Review Miscellaneous 6 of 2019) [2020] eKLR

⁵³ Water Act No. 43 of 2016, Section 119

⁵⁴ As above Section 121

⁵⁵ Sustainable Waste Management Act No. 31 of 2022, Section 3

⁵⁶ As above, Section 12(1) & (2)

⁵⁷ EMCA 1999, Section 87

the garbage produced and the waste management strategies employed.⁵⁸ This requirement reflects the requirement for regular environmental audits under EMCA.⁵⁹

Offences and Penalties

To enhance the protection of the environment, the legal framework creates offences relating to environmental pollution. For instance, EMCA makes it an offence for a person to pollute the environment contrary to the provisions of the Act, this attracts a fine of not less than two million Kenyan shillings but not more than five million Kenyan shillings.⁶⁰ This can also culminate to the polluter being directed to pay the cost for cleaning up the polluted environment and to restore the environment.⁶¹ A good example is the *Owino Uhuru Case*⁶² where the court found against the defendant for releasing carbon monoxide and sulphur dioxide into the environment thereby causing pollution as under Section 142 of EMCA. The Water Act on the other hand makes it an offence for a person to obstruct or pollute water resources without authorization,⁶³ in this instance the effluent discharge license. While Section 143 of the Act does not prescribe the specific penalties for the offence, the Act goes on to prescribe remedies for contravention of the provisions of the Act under Section 144. It coincides with the provisions of EMCA by prescribing the cleaning up of the pollutant from the environment and the removal of any works or machinery which have been employed in the contravention of the Act.⁶⁴ Conversely, the Sustainable Waste Management Act makes it an offence for anyone who fails to observe the waste management practices under the Act and those found with the offence are liable to not more

⁵⁸ Sustainable Waste Management Act No. 31 of 2022, Section 19(1)

⁵⁹ EMCA 1999, Sections 68 & 69

⁶⁰ EMCA 1999, Section 142(1)

⁶¹ EMCA 1999, Section 142(2)

⁶² KM & 9 others v. Attorney General & 7 others

< <http://kenyalaw.org/caselaw/cases/view/265958/#:~:text=relief%20or%20compensation.-,Brief%20facts%20The%201%20st%20to%209%20th%20respondents%20on,suit%20property%2C%20which%20was%20approximately>> accessed 22nd October 2024.

⁶³ Water Act No. 43 of 2016, Section 143

⁶⁴ As above Section 144

than twenty thousand shillings or a prison term of not more than six months or both as the court may deem fit.⁶⁵

Findings

The effectiveness of wastewater management in Mavoko and across Kenya is impeded by several challenges, including complexity of the regulatory framework, overlapping responsibilities, institutional failures, inadequate town planning, lenient penalties, and the use of outdated wastewater management practices. These challenges are discussed below:

Complexities in the regulatory framework

Industrial effluent management regulations are in multiple legal instruments which makes the regulatory framework to be more complex for lay persons to integrate some of the key regulatory requirements. This makes it difficult for some stakeholders to understand and implement the existing legal framework.⁶⁶ For example, EMCA and Water Act which govern effluent discharge under sections 74 to 77 and sections 36 and 108 respectively. Another instance is the establishment of NEMA under EMCA,⁶⁷ with its functions under sections 7 and 9 respectively, with other obligations established under sections 26 and 27 of the Sustainable Waste Management Act.⁶⁸ Similarly, the Water Act, initiates WRA and WASREB which have overlapping mandate with respect to water management which includes factors such as the quality as affected by effluent.⁶⁹

Poor Institutional Coordination

This results from the duplicity of roles between institutions, such as NEMA and

⁶⁵ Sustainable Waste Management Act No. 31 of 2022, Section 20(2)

⁶⁶ Akinyi Florence Ogotu, *Assessment of the Effectiveness of the Policy Framework in Solid Waste Management in Nairobi City County* (University of Nairobi, 2019) pp.73-74. <[https://www.scirp.org/\(S\(ny23rubfvg45z345vbrepxml\)\)/reference/referencespapers?referenceid=3324768](https://www.scirp.org/(S(ny23rubfvg45z345vbrepxml))/reference/referencespapers?referenceid=3324768)> accessed 11th August 2024.

⁶⁷ EMCA, 1999

⁶⁸(Part Vii) No. 31 of 2022

⁶⁹ Water Act Act no.43. Sections 11 and 70 respectively.

WRA, because of similar functions between them. An example is the licensing of projects that are likely to discharge effluents to water resources, which is an obligation for NEMA under EMCA.⁷⁰ The same was brought out in *Jammal Ahmed Ali vs NEMA*,⁷¹ and an obligation for WRA under the Water Act.⁷² This breeds confusion between the two authorities which interferes with their smooth functioning.

Institutional failure

Institutional failures significantly undermine the enforcement of the law. Research conducted in East African cities has revealed that existing waste management laws are not being effectively implemented.⁷³ This is often caused by a lack of collaboration amongst institutions, especially those that operate within the framework of international law and at all levels of government.⁷⁴

The perceived institutional failures are substantiated by claims and cases on which NEMA procured EIA licenses without considering the imperative of meaningful public participation.⁷⁵ The EIA, as held in *Kwanza's Estate case*,⁷⁶ is an important tool for informing the probable effects of a project on the surroundings.

⁷⁰ Of 1999, section 75

⁷¹ *Jamal Ahmed Ali & 5 others vs NEMA & Another*, Tribunal Appeal no. NET 196 of 2016; where the court held that NEMA should ensure that the EIA is undertaken and the procedure is correctly followed before issuing the EIA License including public involvement.

⁷² No. 43 of 2016, section 36(c)

⁷³ Akinyi Florence Ogutu, *Assessment of the Effectiveness of the Policy Framework in Solid Waste Management in Nairobi City County* (University of Nairobi, 2019) <[https://www.scirp.org/\(S\(ny23rubfvg45z345vbrepxml\)\)/reference/referencespapers?referenceid=3324768](https://www.scirp.org/(S(ny23rubfvg45z345vbrepxml))/reference/referencespapers?referenceid=3324768)> accessed 11th August 2024.

⁷⁴ See <http://erepository.uonbi.ac.ke/bitstream/handle/11295/99388/Kariuki_Global%20Strategy%20Implementation%20Challenges%20of%20Kenya%E2%80%99s%20Multilateral%20Environmental%20Agreements%20With%20the%20United%20Nations%20Environment%20Programme%20in%20Nairobi%20> accessed 11th August 2024.

⁷⁵ Ex parte Sound Equipment Ltd. v. Republic.

⁷⁶ *Kwanza Estate Ltd vs Kenya Wildlife Services*, Civil case no. 133 of 2012

Furthermore, it enables decision-makers to create mitigation strategies significant for reducing or completely preventing the foreseen harm. Therefore, NEMA should ensure that the procedure for the same is duly followed.

Such unprocedural issuance of EIA license by NEMA was witnessed in the case of *Amu Power Company Ltd.*⁷⁷ In this matter, the first respondent was a society-based organization that supported Lamu's welfare and interests, and whose membership included both community members and few local civic organizations. To challenge the issuance of the EIA License as well as the procedure of acquiring it, they filed a lawsuit on November 7, 2016. In addressing the issues, court found that the issuance of the EIA license was surrounded by several issues, including: insufficient public involvement, thermoelectric wastewater discharge into the aquatic environments because of subpar and outdated cooling systems, the existence of misstatements and exclusions in the EIA report, and the study's inability to reveal mitigation strategies for the pollution caused by coal handling and storage.⁷⁸ The appellants also wanted the decision by NEMA granting the 2nd respondent the EIA license to be set aside.⁷⁹ Moreover, NEMA had given conditions to the 2nd respondent on the EIA license, but then NEMA proceeded and issued a license without considering the recommendations it had given earlier. Consequently, the court found that these conditions were inadequate, showing a casual approach of the same by NEMA. Therefore, the court allowed the appeal, citing the case of *Mohamed Ali Baadi*,⁸⁰ which delved on section 129(1)(a) of EMCA and established that inadequate meaningful public participation would invalidate the EIA process. Relying on this case, the court found that the respondent's EIA study was invalid due to lack of meaningful public participation.⁸¹ The tribunal further ordered NEMA to adhere to Regulations 17 and 22, to effectively interact with lead agencies and the

⁷⁷ Jamal Ahmed Ali & 5 others vs NEMA & Another, Tribunal Appeal no.NET 196 of 2016

⁷⁸ Ibid

⁷⁹ Ibid

⁸⁰ Mohamed Ali Baadi and others vs the Hon. Attorney General and 7 others (HCCC Petition NO 22 OF 2012)

⁸¹ Jamal Ahmed Ali & 5 others vs NEMA & Another, Tribunal Appeal no.NET 196 of 2016

community, and to adhere to the stringent timelines stipulated by the Law.⁸²

Lenient penalties

This section appreciates the existence of penalties for environmental pollution, including the pollution of water resources.⁸³ These penalties include compensation of the victim of pollution and cost of restoration,⁸⁴ which do not adequately cater for the damage caused to the environment. On the same note, courts are often barred from exercising their discretion in determining the penalties to be imposed, which results from legislative provisions which prescribe maximum penalties which do not align with the offences. For instance, the provision that the penalty for a person who commits an offence under the Water Act should not be more than Kshs. 1 million and if it's a prison term not to exceed two years,⁸⁵ rob judges of their discretion. Therefore, they force the court to have some leniency in giving penalties for the numerous offenses concerning the surroundings, created under EMCA and the Water Act of 2016. This leniency creates some laxity among project proponents in implementing the requirements of the law.

Outdated wastewater management systems in Mavoko

Use of outdated waste water management technologies/systems is among the prime factors leading to natural destabilization. This is because the industries in Mavoko lack the modern pre-treatment mechanisms to treat effluents before discharging them into the environment, thus, causing environmental degradation.⁸⁶ The treatment facility at the Export Processing Zone (EPZ) is also insufficient in reducing phosphates, nitrates and heavy metals during the rainy season, thus qualifying it to be categorized as an outdated mechanism for effluent

⁸² Ibid

⁸³ Water Act no.43 of 2016, section 143(1)(b)

⁸⁴EMCA, part (ix) sections 108-116

⁸⁵Water Act no.43 of 2016, section 147

⁸⁶Juma Lillian Adhiambo, 'WasteWater Management: A case of reducing wastewater release into environment in Mathare North, Nairobi County' (2014) p.21

treatment.⁸⁷

Poor Town Planning

The research has discovered that, historically, Mavoko suffers from poor town planning. Consequently, industries are located next to residential neighborhoods which expose the residents to environmental concerns including carbon emissions, dust, and insecticides. For instance, the flower fields along the Mombasa highway are close to rapidly developing residential neighborhoods, which expose residents to the insecticides and other contaminants utilized in the farms.⁸⁸

Recommendations

Industrial wastewater policy

Kenya needs to put in place a separate wastewater policy that will integrate all the scattered regulations. This will help in dealing with the perceived complexity of the regulatory framework. Therefore, this article calls upon the relevant stakeholders including NEMA, WRA, and industrial players to work towards the initiation of this policy.

Sensitization to staff members

NEMA and other enforcement agencies could do well in continual sensitization of its officers against laxity and corruption as the same encourages complacency by industries and project proponents. NEMA should also acquire updated methods of monitoring to check compliance as well as maintaining a database of industries operating within a given area. These records should be updated and submitted within the set timelines to enable the assessing and addressing of

⁸⁷Nadir, Stanley, Mwakio Tole, Najma Dharani, and Godfrey Wafula. *Effectiveness of a Wastewater Treatment Plant located at EPZ in reducing Pollutants Discharged into River Athi, Kenya* (2020). p.262

⁸⁸Un-Habitat, 'Mavoko Urban Sector Profile' (2006) p.8<
<https://dokumen.tips/documents/kenya-mavoko-urban-profile.html?page=2>>accessed 8th August 2024.

pertinent issues.

Encouraging proper coordination between NEMA and WRA

Both EMCA and the Water Act provide for licenses to be acquired by project proponents or industries. There should be a system in place for ensuring one license is acquired instead but with the approval of both NEMA and WRA to ensure efficiency of the processes. In such an instance, the agencies collaborate and coordinate on the functions. This invokes the imperative of a multi-agency taskforce which can come up with ideas on the way forward to streamline the process.

Encouraging industrial symbiosis in Mavoko

There is a possibility for industries in Mavoko to implement industrial symbiosis by using the waste produced by other industries or by-product exchange. For instance, sewerage waste is directed to the Pilot Fertilizer Plant or Sanergy Ltd located at Kinanie.⁸⁹ The Sanergy Ltd recycles sanitary and organic waste to produce insect-based protein and organic fertilizer that's made by thermophilic. The average volume of natural refuse processed daily amount to 30 tonnes.⁹⁰ Some industrial manufacturing systems recycle or reuse the waste produced within the system while others leave it. Companies with ecological systems that constantly allow reuse of energy and waste in closed loops by other processes within the system are those with evolved industrial ecosystems and integrated industrial systems.⁹¹ Worth noting is that industrial symbiosis in Mavoko can be limited by insufficient effluent and by-product recovery facilities and lack of awareness among stakeholders.⁹²

⁸⁹ Dr. Ayub Macharia, 'Give me organic waste and I will turn it to gold' (2022) p.1 <<https://www.mazingirasafi.com/circular-economy-for-organic-waste-in-nairobi/>> accessed 9th August 2024.

⁹⁰ Ibid page 2

⁹¹ Kelvin Khisa, 'Development of an industrial ecology model for the Athi River special economic zone: Policy implications for green growth in Kenya' (2016) p.1

⁹² Khisa, K., Oguge, N., & Obiero, S. A. (2018). Mainstreaming the culture of eco-industrial parks (EIPs) in Kenya for the sustainable realization of the country's vision 2030: *Journal of International Business Research and Marketing*, 3(6), pp. 11-12

Assessment of town planning

Revising the urban planning for Mavoko would help in removing the industries located close to residential area. This can further be achieved through strict implementation of the zoning guidelines. This should also include outlining the infrastructure, prior to project approval, including waste collection centres, assortment centres, segregation(s), recycling and treatment among others. Lastly, this would involve the implementation of the requirements set for in the Urban and Cities Act,⁹³ which aspires to put Article 184 of the Constitution into practice, to administer urban regions and towns, to establish the concept of administration and resident engagement,⁹⁴ which are integral to environmental governance.

Incorporating technologies into wastewater management systems

Technologies for industrial effluent management, such as modern methods of waste water treatment, would assist in keeping up with the rising population and the high rate of development in Mavoko. Alternatively, the use of industrial parks which incorporate the use of plasma gasification and the use of Abi-Methane, sewerage digester which separates liquid and solid and then treat the liquid while converting the solid into compost.⁹⁵ This would greatly lead to resource conservation, waste recycling and reduction engendering the green economy concept.

Conclusion

The right to a clean and healthy environment is fundamental to a country's economic development.⁹⁶ Effective management of industrial waste water is crucial to upholding this right.⁹⁷ Kenya is fortunate to have a strong framework

⁹³ (2011)

⁹⁴ See a <<https://www.devolutionhub.or.ke/resource/urban-areas-and-cities-act-2011>> accessed 17th August 2024.

⁹⁵ Desire Greenberg, 'The greening of industrial property developments in South Africa' (July 2014) p.9

⁹⁶ Lucas Schmidt, *True progress for industrialization in Kenya*, (2020) para1 <<https://borgenproject.org/igf/industrialization-in-kenya/>> accessed 15th July 2024.

⁹⁷ Ibid.

for industrial wastewater management, but its effectiveness is undermined by complex legal texts, slack implementation, lack of technological knowledge, and institutional shortcomings.

To address these challenges and prioritize a clean environment, this article advocates for a multi-faceted approach. Stakeholders should be educated on industrial wastewater management practices, and a comprehensive legislation should be developed to consolidate existing regulations into a unified framework. Additionally, introducing stricter penalties and improving institutional coordination are essential steps. These measures will significantly enhance Kenya's efforts toward sustainable environmental management and economic growth.

Bibliography

List of Instruments

1. The Constitution
2. Environmental Management and Coordination Act, 1999
3. Water Act No. 43 of 2016
4. Sustainable Waste Management Act
5. Stockholm Declaration

List of Cases

1. Jamal Ahmed Ali & 5 others vs NEMA & Another, Tribunal Appeal no.NET 196 of 2016;
2. Ex parte Sound Equipment Ltd. v. Republic
3. Kwanza Estate Ltd vs Kenya Wildlife Services, Civil case no. 133 of 2012
4. Jamal Ahmed Ali & 5 others vs NEMA & Another, Tribunal Appeal no.NET 196 of 2016
5. Mohamed Ali Baadi and others vs the Hon. Attorney General and 7 others (HCCC Petition NO 22 OF 2012)
6. Jamal Ahmed Ali & 5 others vs NEMA & Another, Tribunal Appeal no.NET 196 of 2016

Books

1. Muigua K., *Nurturing our Environment for Sustainable Development*, Glenwood Publishers, 2016.

Journals and Articles

1. Akinyi Florence Ogutu, *Assessment of the effectiveness of the policy framework on solid waste management in Nairobi, Kenya* (2015) <http://erepository.uonbi.ac.ke/bitstream/handle/11295/99388/Kariuki_Global%20Strategy%20Implementation%20Challenges%20of%20Kenya%E2%80%99s%20Multilateral%20Environmental%20Agreements%20With%20the%20United%20Nations%20Environment%20Programme%20in%20Nairobi%20>

2. Caleb M.C Mireri , *Industrialization of Athi River Town*, (1992) <http://erepository.uonbi.ac.ke/bitstream/handle/11295/65953/Mireri_Industrialization%20of%20Athi%20river%20town.pdf>
3. Desire Greenberg, 'The greening of industrial property developments in South Africa' (July 2014)
4. Dr. Ayub Macharia, 'Give me organic waste and I will turn it to gold' (2022) <<https://www.mazingirasafi.com/circular-economy-for-organic-waste-in-nairobi/>>
5. Hamza Kyeyune, *Ugandan River dying from pollution* (National Environment Management Authority, 2022)<<https://www.aa.com.tr/en/africa/ugandan-river-dying-from-pollution/2533588>>
6. John Omung'ala Aywa , 'Suitability of Athi River water for irrigation within Athi river town and its environs' (2017)
7. Juliana Mutua, Angwata Evans & Stephen Anyango, *Effectiveness of sanitation policy instruments in Mavoko Municipality of Machakos County, Kenya* (2017) vol.3(1) Cogent Environmental Science. <https://www.researchgate.net/publication/317628690_Effectiveness_of_sanitation_policy_instruments_in_Mavoko_Municipality_of_Machakos_County_Kenya>
8. Juma Lillian Adhiambo, 'WasteWater Management: A case of reducing wastewater release into environment in Mathare North, Nairobi County' (2014)
9. Kelvin Khisa, 'Development of an industrial ecology model for the Athi River special economic zone: Policy implications for green growth in Kenya' (2016)
10. KEWASNET, *Lets talk wastewater*,<<https://kewasnet.co.ke/lets-talk-wastewater/#:~:text=A%20number%20of%20wastewater%20treatment,to%20expand%20the%20wastewater%20infrastructure.>>
11. Khisa, K., Oguge, N., & Obiero, S. A. (2018). Mainstreaming the culture of eco-industrial parks (EIPs) in Kenya for the sustainable realization of the

- country's vision 2030. *Journal of International Business Research and Marketing*, 3(6)
12. Lucas Schmidt, *True progress for industrialization in KJenya*, (2020) < <https://borgenproject.org/igf/industrialization-in-kenya/>>
 13. Marry Wangari, Athi River, Thwake Dam most polluted water bodies, MPs told (Nation, 2023)< <https://nation.africa/kenya/news/athi-river-thwake-dam-most-polluted-water-bodies-mps-told-4346462>>
 14. Micronics Engineered Group (2022)< <https://leadiq.com/c/micronics-engineered-filtration-group/5a1d87bd240000240061ac31>>
 15. Nadir, S., Tole, M., Dharani, N., & Wafula, G. *Effectiveness of a Wastewater Treatment Plant located at EPZ in reducing Pollutants Discharged into River Athi, Kenya*. (2020)< <https://www.semanticscholar.org/paper/5ff6cca23d05acb3a24d6f227c1a754b2317b7f1>>
 16. Nyasani Mbaka and Benson Osumba, *Muunganowa Wanavijiji: Focus on Athi River*, (2012) < <https://www.muungano.net/browseblogs/2012/04/24/focus-on-athi-river>>
 17. 'Strategic Environmental Assessment Study in the Master Plan for Development of the Kinanie Leather Industrial Park' (November 2015)
 18. Un-Habitat, *Mavoko Urban Sector Profile*, (2006) < <https://staging.unhabitat.org/pmss/getElectronicVersion.asp?nr=2789&alt=1>>
 19. Wahome C., Muli P.,.....Momanyi E. & Hassan F., *Evaluation of Effluent Discharge from Steel Manufacturing Industries on the Proliferating Environmental Degradation in Nairobi Metropolitan in the Republic of Kenya* (2021) vol.9(9) *Journal of Geoscience and Environment Protection*. P198< <https://www.scirp.org/journal/paperinformation?paperid=112330>>

Does the Law Work? A Case of Kenyan Prison Congestion and the Witchcraft Act

By: **Hon. Muthoni Njagi** *

Abstract

This article examines the paradox of Kenya's legal system, which leads to overcrowding in prisons despite a complex legal system. Decongesting prisons, especially in Nairobi, is the goal of recent initiatives like the Judiciary's Rapid Results Initiative, which was started by Chief Justice Martha Koome. The analysis extends to the *Witchcraft Act*, a colonial-era law that criminalizes witchcraft, reflecting on my personal experiences in the Malindi Law Courts. The Act not only criminalizes a practice but exacerbates psychological, cultural, and legal challenges for the Giriama community, where accusations of witchcraft often lead to murder and further criminal activity. By examining both the structural and cultural factors contributing to prison congestion and crime, this article evaluates whether the law truly works in Kenya's complex social landscape.

Introduction

The purpose of the law is to maintain order, promote justice, and protect individual and collective rights. (Gary Forrester, 2023). But when the results seem to indicate otherwise, one may well wonder if the legal system is really that effective. Kenyan prisons are notoriously overcrowded, a fact that has prompted the Chief Justice to launch the *Rapid Results Initiative* in Nairobi, with the objective of reducing congestion. (Judiciary, 2024). This congestion underscores a larger systemic issue about whether the law works as intended or if its enforcement mechanisms are deficient.

In addition to prison congestion, Kenya's legal system must grapple with deeply rooted cultural beliefs, (African Traditional Justice Systems, *supra* note 13, at 162) as evidenced by the *Witchcraft Act*. This colonial law criminalizes

* *Principle Magistrate, National CSO Coordinator*

witchcraft, which is considered a serious offense, particularly among the Giriama people of coastal Kenya. (Erik Meinema 2017)

The social and psychological ramifications of being accused of witchcraft often lead to violence, further contributing to criminal activity. (Standard, 2019)

This paper explores both the legal and cultural dynamics at play and offers insight into how these contribute to crime and prison congestion

.

1. Prison Congestion and the Law

The issue of prison congestion in Kenya reflects a multi-faceted problem within the legal and correctional systems. (Mercy Deche and Conrad Bosire, 2021). As of 2023, Kenyan prisons housed over 50,000 inmates, far exceeding their capacity of approximately 27,000. (Kamer (2022)). This overcrowding has several root causes, including delayed trials, the overuse of pre-trial detention, and minor offenses that result in custodial sentences. (Kamer, 2022) According to the Kenyan Constitution and the Criminal Procedure Code, certain offenses could be managed through alternative dispute resolution or non-custodial sentences, yet this is underutilized (Constitution of Kenya, Art. 159).

The *Rapid Results Initiative* launched by the Judiciary in Nairobi was designed to address this issue. (Judiciary 2024) The initiative seeks to expedite the handling of minor cases, review pre-trial detainees' status, and advocate for alternative sentences like probation and community service. Such initiatives are critical in demonstrating the law's capacity to adapt to changing circumstances and address inefficiencies. (Judiciary 2024) However, while these programs offer temporary relief, they raise the question of why such measures are needed in the first place if the law is functioning as it should.

One major contributor to congestion is the high rate of pre-trial detention, where individuals accused of minor offenses remain incarcerated for long periods awaiting trial. (Adam Stapleton, 2004) * Studies show that 41% of Kenyan prisoners are in pre-trial detention, many of whom could be granted bail or tried

within a shorter period (Legal Resources Foundation, 2020). In this context, the law may seem ineffective, not in its letter, but in its application. Structural inefficiencies, combined with limited resources, undermine the system's capacity to deliver justice in a timely manner.

2. The Witchcraft Act and My Experiences in Malindi

During my tenure as a magistrate at the Malindi Law Courts, I frequently encountered cases involving the *Witchcraft Act*, which criminalizes witchcraft and related activities under Kenyan law. The Act, a remnant of colonial legislation, defines witchcraft as an offense punishable by up to five years in prison. (Witchcraft Act, 1925, Cap 67 Laws of Kenya). However, this legislation presents complex challenges, particularly among the Giriama people of the Kenyan coast. (Agoro, Abel. 2019).

The Giriama community holds strong beliefs in witchcraft, and accusations of witchcraft often result in social ostracization, violent reprisals, and even murder. When someone is accused of being a witch, it can cause severe psychological trauma, stigmatization, and social isolation.* In many instances, accused individuals flee their homes or are killed by mobs seeking to 'purge' the community of the alleged witch.*(Ciekawy, Diane. 2001.)

During my work in Malindi, I presided over cases where individuals accused of witchcraft had been lynched or had their property destroyed. The Act in Section 4 criminalizes the act of "accusing one of being a witch." These cases revealed a troubling intersection between legal frameworks and cultural beliefs. Although the *Witchcraft Act* criminalizes the practice of witchcraft, it offers little protection to those accused of being witches. Instead, it inadvertently fuels violence, perpetuating the very crime it seeks to prevent. In this context, the law fails to account for the social realities that exist beyond its colonial origins.

The psychological impact on individuals accused of witchcraft is profound. These individuals often experience intense fear, anxiety, and depression, knowing that community members may view them as a threat to their well-being. The cultural

belief in witchcraft is deeply ingrained, and the law has little power to change these perceptions. (Constitution art. 44 (2010) (Kenya).) Instead, it criminalizes an already marginalized group, exacerbating their vulnerability and increasing the likelihood of violent retribution (Mbiti, 2010).

3. Psychological and Cultural Perspectives on Witchcraft Accusations

From a psychological standpoint, being labeled a witch can lead to severe mental health issues. Victims of witchcraft accusations in the Giriama community experience what is known as ‘cultural trauma.’ (Chi Adanna Mgbako and Katherine Glenn, 2011) According to Goffman’s theory of stigma (1963), being publicly labeled as a deviant can lead to the internalization of that stigma, resulting in identity crises, chronic stress, and in extreme cases, suicide.

Culturally, witchcraft accusations function as a means of social control) Witchcraft is often blamed for unexplained misfortunes, illnesses, or deaths, and accusing someone of being a witch provides a convenient scapegoat. However, this practice perpetuates a cycle of violence and crime. (Schwartz SH. 2014) As those accused of witchcraft are often killed or driven out of their communities, these actions contribute to the very crime rates that burden Kenya’s legal system. This cultural phenomenon raises the question of whether laws like the *Witchcraft Act* can ever be effective in societies where beliefs in the supernatural continue to shape social behavior. The law’s focus on criminalizing witchcraft fails to address the root causes of these beliefs or offer alternative methods for conflict resolution within communities. (Gershman B. 2022)

Conclusion

The Kenyan legal system, though robust on paper, struggles with the realities of its implementation. Prison congestion, as evidenced by the *Rapid Results Initiative*, reflects deeper systemic inefficiencies that prevent the law from functioning as it should. (UNODC 2013). Similarly, the *Witchcraft Act* exemplifies how outdated legislation can exacerbate social issues rather than resolve them. The law’s failure to protect vulnerable populations, such as those accused of

witchcraft, highlights the complex interplay between legal systems, cultural beliefs, and psychological consequences. (UNODC, 2013)

For the law to truly work, it must be adaptive, culturally sensitive, and capable of addressing both the structural inefficiencies that lead to prison congestion and the cultural contexts that fuel criminal behavior. (Until these systemic issues are resolved, the law in Kenya will remain an imperfect tool for justice. Erik Luna 2013)

"*Does the Law Work? A Case of Kenyan Prison Congestion and the Witchcraft Act*," seeks to address two interrelated concerns:

1. **Prison Congestion in Kenya:** The article explores how Kenya's legal system contributes to the chronic overcrowding in its prisons. Despite the presence of laws designed to ensure fairness and justice, structural inefficiencies, delays in trial, over-reliance on pre-trial detention, and custodial sentences for minor offenses have caused prison populations to exceed capacity. The Rapid Results Initiative, launched by the Judiciary under Chief Justice Martha Koome, aims to reduce congestion by expediting cases and promoting alternatives to incarceration, but its necessity raises questions about the overall effectiveness of the legal system.
2. **The Witchcraft Act and Its Socio-Cultural Ramifications:** The second concern revolves around the Witchcraft Act, a colonial-era law that criminalizes witchcraft. The paper critiques this outdated legislation for its inability to address the deep-rooted cultural beliefs surrounding witchcraft, particularly among the Giriama people. The Act inadvertently fuels violence by failing to protect individuals accused of witchcraft and exacerbates their marginalization. The law's approach, which criminalizes both witchcraft and accusations of witchcraft, does little to resolve the social issues that give rise to witchcraft-related conflicts.

Critical Discussion of These Concerns

1. Prison Congestion: A Structural and Legal Issue

- **Systemic Inefficiencies:** The article highlights inefficiencies such as delayed trials, underutilization of non-custodial sentences, and reliance on pre-trial detention. These are not just legal oversights but reflect larger issues within the judiciary and correctional systems, including resource constraints and outdated practices. While initiatives like the Rapid Results Initiative offer temporary relief, they point to a larger question about the long-term sustainability of such efforts. If the law were functioning effectively, there would not be a need for such emergency interventions.
- **Alternative Sentencing:** The Kenyan Constitution allows for alternative dispute resolution and non-custodial sentences, yet these options are underutilized. This reflects a disconnect between what the law prescribes and how it is implemented, especially in cases of minor offenses. By focusing on custodial sentences, the system places undue strain on prisons and overlooks rehabilitative or restorative approaches, which could be more effective in reducing recidivism and fostering community integration.
- **Pre-Trial Detention:** With 41% of inmates in pre-trial detention, the judicial system is clogged with cases that could be resolved faster through bail or alternative justice mechanisms. This suggests that the law may not be inherently flawed in its substance but suffers from poor application, which raises larger concerns about access to justice, fairness, and equality before the law.

2. The Witchcraft Act: A Cultural and Legal Dissonance

- **Colonial Legacy and Cultural Insensitivity:** The Witchcraft Act, as a product of colonial legislation, reflects a lack of cultural sensitivity to the communities it impacts. The law criminalizes witchcraft without considering the deeply entrenched cultural beliefs of groups like the Giriama, for whom witchcraft accusations are a significant part of social conflict resolution. The Act fails to engage with the social context in which these beliefs arise and thus exacerbates violence and marginalization rather than offering a solution.
- **Violence and Psychological Trauma:** By criminalizing witchcraft, the law not only fails to protect those accused but also leaves them vulnerable to mob justice, stigmatization, and violence. The psychological impact on individuals accused of witchcraft—fear, depression, and social exclusion—reflects a deeper failure of the law to provide justice and protection for all citizens. In this case, the law contributes to the very crime it seeks to prevent, as accusations lead to retaliatory violence.
- **Law vs. Social Norms:** The Witchcraft Act is a striking example of how laws that ignore cultural realities can backfire. In many societies, witchcraft accusations serve as a way of explaining misfortune or asserting control, but the law criminalizes this without offering alternative conflict resolution mechanisms. Rather than mitigating crime, it perpetuates violence, raising questions about the effectiveness of legal frameworks that are disconnected from the cultural norms they seek to regulate.

Broader Implications and Recommendations

- **Law Reform and Cultural Adaptation:** One of the central critiques of the article is that Kenya's legal system, particularly in the case of the Witchcraft Act, fails to adapt to cultural realities. For the law to be effective, it must account for the social contexts in which it operates. This includes reforming outdated colonial laws like the Witchcraft Act to

incorporate restorative justice practices that are sensitive to the beliefs and traditions of affected communities. Legal systems must be flexible and adaptive to address both systemic issues like prison congestion and culturally specific challenges like witchcraft accusations.

- **Structural Overhaul:** Addressing prison congestion requires not just temporary measures like the Rapid Results Initiative but a broader structural overhaul of Kenya's justice system. This includes reforming trial processes to reduce delays, expanding the use of alternative sentencing for minor offenses, and improving access to legal representation to prevent the overuse of pre-trial detention. These changes must be institutionalized to prevent future crises rather than relying on short-term relief efforts.
- **Psychosocial Support:** The psychological toll on those accused of witchcraft demands more than just legal protection. Community-based psychosocial support services could help address the trauma experienced by both the accused and their families. Integrating mental health services with legal interventions would also help mitigate the long-term effects of stigmatization and violence in these communities.

References

- Adam Stapleton, Good Practices in Reducing Pre-Trial Detention (London: Penal Reform International [PRI], undated), www.penalreform.org/english/frset_theme_en.htm; Dealing with Prison Overcrowding, Guidance Note 4 (London: International Centre for Prison Studies [ICPS], 2004), www.kcl.ac.uk/depsta/rel/icps/gn4-prison-overcrowding.pdf; Pre-Trial Detention, Guidance Note 5 (ICPS, www.kcl.ac.uk/depsta/rel/icps/gn5-pre-trial-detention.pdf).
- Agoro, Abel. 2019. "Kilifi Pastors Face Arrest over Inciting Residents to Lynch the Elderly." [Kenyan.co.ke](http://www.kenyans.co.ke). <https://www.kenyans.co.ke/news/36720-kilifi-pastors-facing-arrests-charges-incitement-residents-commit-crime>. Accessed: 28-09-2024.
- Chi Adanna Mgbako and Katherine Glenn, Witchcraft Accusations and Human Rights: Case Studies from Malawi, 43 *Geo. Wash. Int'l L. Rev.* 389 (2011) Available at: https://ir.lawnet.fordham.edu/faculty_scholarship/399
- CONSTITUTION art. 44 (2010) (Kenya).
- Ciekawy, Diane. 2001. "Utsai as Ethical Discourse: A Critique of Power from Mijikenda in Coastal Kenya." In *Witchcraft Dialogues: Anthropological and Philosophical Exchanges*, edited by George C. Bond and Diane Ciekawy, 158–89. Athens: Ohio University Press
- Constitution of Kenya, 2010.
- Erik Luna 2013 *Reforming Criminal Justice Volume 4: Punishment, Incarceration, and Release*, a report by The Academy for Justice
- Erik Meinema (2017) Chapter 6 *Witchcraft, Terrorism, and 'Things of Conflict' in Coastal Kenya Material Perspectives on Religion, Conflict, and Violence* Pages: 111–134 https://doi.org/10.1163/9789004523791_007
- Gary Forrester Exploring the role of law in promoting order and justice Perspective - (2023) Volume 11, Issue 2
- Gershman B. Witchcraft beliefs around the world: An exploratory analysis. *PLoS One*. 2022 Nov 23;17(11):e0276872. doi: 10.1371/journal.pone.0276872. PMID: 36417350; PMCID: PMC9683553.

- Goffman, E. *Stigma: Notes on the Management of Spoiled Identity* (Penguin 1963).
- Judiciary takes the lead in prison congestion available in <https://judiciary.go.ke/judiciary-takes-lead-in-prisons-decongestion/>
- Legal Resources Foundation, *Pre-Trial Detention in Kenya: A Rights-Based Approach* (2020).
- Mercy Deche and Conrad Bosire, 'The Silver Lining in the COVID-19 Cloud: An Appraisal of Accelerated Prison Decongestion in Kenya', *The Global Impact of the COVID-19 Pandemic on Institutional and Community Corrections* (Routledge 2021).
- Mbiti, J. *African Religions & Philosophy* (2nd edn, Heinemann 2010).
- Witchcraft Act, 1925, Cap 67 Laws of Kenya.
- Kamer L., (2022). Number of convicted and un-convicted prisoners in Kenya 2010-2020. <https://www.statista.com/statistics/1241807/number-of-convicted-and-unconvicted-prisoners-in-kenya/> Accessed on 7th September 2024
- Schwartz SH. National culture as value orientations: consequences of value differences and cultural distance. In: Ginsburgh VA, Throsby D, editors. *Handbook of the economics of art and culture*. vol. 2. Amsterdam: Elsevier; 2014. p. 547–586. [[Google Scholar](#)]
- (Standard. 2019. *Stop Killing Us, Say Elderly Men Living at the Mercy of Armed Lynch Mob*. <https://www.standardmedia.co.ke/article/2001314230/stop-killing-us-say-elderly-men-living-at-the-mercy-of-armed-lynch-mob>. Accessed: 23-10-2024.)
- UNITED NATIONS OFFICE ON DRUGS AND CRIME Vienna HANDBOOK ON STRATEGIES TO REDUCE OVERCROWDING IN PRISONS CRIMINAL JUSTICE HANDBOOK SERIES 2013

Fostering Sustainable Lifestyles for Posterity

By: *Hon. Prof. Kariuki Muigua**

Abstract

The 2030 Agenda for Sustainable Development envisages harmony between humanity and nature towards the ideal of Sustainable Development. Achieving this ideal requires creating and maintaining the conditions under which humanity and nature can exist in productive harmony to support present and future generations. One of the key ways through which this ideal can be realized is by humanity embracing sustainable lifestyles in harmony with nature. This paper critically examines the need to embrace sustainable lifestyles. The paper defines the idea of sustainable lifestyles and argues that it is an urgent priority in the wake of global challenges including the triple planetary crisis of climate change, loss of biodiversity, and pollution. The paper explores some of the techniques that can be adopted towards fostering sustainable lifestyles for posterity.

1.0 Introduction

The United Nation's 2030 Agenda for Sustainable Development sets out the global vision for sustainability¹. It entails a plan of action for humanity and nature towards prosperity and the ideal of Sustainable Development². The agenda seeks to foster prosperity for humanity by ending poverty and hunger in all their forms and dimensions and ensuring that all human beings can fulfill their potential in

** PhD in Law (Nrb), FCI Arb (Chartered Arbitrator), OGW, LL. B (Hons) Nrb, LL.M (Environmental Law) Nrb; Dip. In Law (KSL); FCPS (K); Dip. in Arbitration (UK); MKIM; Mediator; Consultant; Lead expert EIA/EA NEMA; BSI ISO/IEC 27001:2005 ISMS Lead Auditor/ Implementer; ESG Consultant; Advocate of the High Court of Kenya; Professor at the University of Nairobi, Faculty of Law; Member of the Permanent Court of Arbitration (PCA) [May, 2024].*

¹ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 16/05/2024)

² Ibid

dignity and equality and in a healthy environment³. Further, the agenda seeks to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action to combat climate change, so that it can support the needs of the present and future generations⁴. The 2030 agenda therefore envisages harmony between humanity and nature towards the ideal of Sustainable Development.

The concept of Sustainable Development seeks to promote development that meets the needs of the present without compromising the ability of future generations to meet their own needs⁵. It envisages creating and maintaining the conditions under which humanity and nature can exist in productive harmony to support present and future generations⁶. Sustainable Development aims to achieve this ideal by promoting environmental conservation, economic development and social progress⁷.

It has been noted that achieving Sustainable Development requires humanity to embrace sustainable lifestyles in harmony with nature⁸. According to the United Nations Environment Programme (UNEP), it is necessary to harness individual decision-making for sustainability and integrate sustainable lifestyle principles across society, so that sustainable living, in line with the Sustainable

³ Ibid

⁴ Ibid

⁵ World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

⁶ United States Environmental Protection Agency., 'What is Sustainability?' Available at <https://www.epa.gov/sustainability/learn-about-sustainability> (Accessed on 16/05/2024)

⁷ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' International Sustainable Development Law., Vol 1

⁸ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

Development Goals, becomes the norm for people everywhere⁹.

This paper critically examines the need to embrace sustainable lifestyles. The paper defines the idea of sustainable lifestyles and argues that it is an urgent priority in the wake of global challenges including the triple planetary crisis of climate change, loss of biodiversity, and pollution. The paper explores some of the techniques that can be adopted towards fostering sustainable lifestyles for posterity.

2.0 Sustainable Lifestyles: Definition and Elements

A sustainable lifestyle has been defined as a cluster of habits and patterns of behaviour embedded in a society and facilitated by institutions, norms and infrastructures that frame individual choice, in order to minimize the use of natural resources and generation of wastes, while supporting fairness and prosperity for all¹⁰. It has also been described as a way of living that comprises of social behaviors and choices that minimize environmental degradation while supporting equitable socio-economic development and better quality of life for all¹¹. In addition, a sustainable lifestyle also refers to a sum of all habits that together can be identified as a distinct way of living of a human being, which guarantees a basic quality of life that can be maintained indefinitely by a certain population and therefore remains within the carrying capacity of the ecoregion

⁹ United Nations Environment Programme., 'Why Sustainable Lifestyles Matter' Available at <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-lifestyles/why-sustainable-lifestyles> (Accessed on 16/05/2024)

¹⁰ United Nations Environment Programme., 'Fostering and Communicating Sustainable Lifestyles: Principles and Emerging Practices' Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/17016/fostering_Communicating_Sust_Lifestyles.pdf?sequence=1&isAllowed=y (Accessed on 17/05/2024)

¹¹ United Nations Environment Programme., 'Sustainable Lifestyles' Available at <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-lifestyles> (Accessed on 17/05/2024)

considered¹². Sustainable lifestyles can therefore be seen as patterns of action and consumption, used by people to affiliate and differentiate themselves from others, which: meet basic needs, provide a better quality of life, minimise the use of natural resources and emissions of waste and pollutants over the lifecycle, and do not jeopardise the needs of future generations¹³.

UNEP notes that a sustainable lifestyle minimizes ecological impacts while enabling a flourishing life for individuals, households, communities, and beyond¹⁴. A sustainable lifestyle is the product of individual and collective decisions about aspirations and about satisfying needs and adopting practices, which are in turn conditioned, facilitated, and constrained by societal norms, political institutions, public policies, infrastructures, markets, and culture¹⁵. The concept of sustainable lifestyles envisages altruistic and frugal behaviours of an individual who maintains harmony with the society, economy and environment¹⁶. This idea encompasses a wide range of activities, including energy and water conservation, waste recycling, green consumption and travel and tourism behaviours¹⁷. In addition, it has been noted that sustainable lifestyles entails activities and patterns aimed at promoting efficient use of natural resources, minimizing greenhouse gas emissions, and curbing waste and pollution¹⁸. The concept of sustainable lifestyles acknowledges that sustainability

¹² Lubowiecki-Vikuk. A., Dabrowska. A., & Machnik. A., 'Responsible Consumer and Lifestyle: Sustainability Insights' Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7442902/> (Accessed on 17/05/2024)

¹³ United Nations., 'Sustainable Lifestyles and Education for Sustainable Consumption' Available at <https://www.un.org/esa/sustdev/marrakech/gpaper2chap7.pdf> (Accessed on 17/05/2024)

¹⁴ United Nations Environment Programme., 'Fostering and Communicating Sustainable Lifestyles: Principles and Emerging Practices' Op Cit

¹⁵ Ibid

¹⁶ Lubowiecki-Vikuk. A., Dabrowska. A., & Machnik. A., 'Responsible Consumer and Lifestyle: Sustainability Insights' Op Cit

¹⁷ Ibid

¹⁸ United Nations Environment Programme., 'Sustainable Lifestyles' Op Cit

challenges cannot be solved only by improving efficiency, but should also require behavioural changes that entail empowerment of individuals and a concerted action of all societal actors, including governments, businesses, Non-Governmental Organizations (NGO), media and education, which play an important role in shaping lifestyles¹⁹. Achieving sustainable lifestyles requires changes at cultural, social, environmental and economic levels by using strategies that raise awareness and developing new values and visions for sustainable societies²⁰.

Fostering sustainable lifestyles is a pertinent global concern. It has been noted that achieving the Sustainable Development Goals (SDGs) requires a substantial changes in our lifestyles²¹. To advance the SDGs, complex and fundamental transformations of our societal systems are required²². It requires humanity to change their daily behavior, ultimately shifting human lifestyles towards sustainability²³.

It has been estimated that by 2050, the world's population may reach 10 billion increasing the demand for food, fashion, travel, housing and related aspirations²⁴. With the planet's resources already being stretched, this enormous rise in population means that an increasing number of people will be unable to meet basic needs putting pressure on the available resources²⁵. It has been asserted that in a world stretched thin for resources and under the threat of global

¹⁹ United Nations., 'Sustainable Lifestyles and Education for Sustainable Consumption' Op Cit

²⁰ Ibid

²¹ Yamane. T., & Kaneko. S., 'Is the Younger Generation a Driving Force Toward Achieving the Sustainable Development Goals? Survey Experiments' Available at <https://www.sciencedirect.com/science/article/abs/pii/S0959652621001529?via=ihub> (Accessed on 17/05/2024)

²² Ibid

²³ Ibid

²⁴ United Nations Environment Programme., 'Sustainable Lifestyles' Op Cit

²⁵ Ibid

biodiversity loss and climate change, our lifestyles decisions are putting the planet at risk²⁶. For example humanity consumes water faster than can be replenished from underground aquifers²⁷; burns hydrocarbons as global supplies dwindle and global temperatures rise²⁸; and consumes antiquated diets that inefficiently use plants and animals²⁹.

Some of the major global challenges facing humanity have been attributed to our lifestyles. For example, the triple planetary crisis of climate change, pollution and biodiversity loss has been attributed to human behaviour and activities³⁰. Human activities are the main drivers of climate change³¹. Energy use, industry, transport, buildings and agriculture attributed to human activities are the main causes for release of greenhouse gases to the atmosphere³². The impacts of climate change are already being manifested through increased intensity and severity of droughts, water scarcity, wildfires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity threatening the sustainable development agenda³³. Further, human activities including emissions from motor vehicles and industries and cooking with polluting fuels and technologies are the major causes of air pollution³⁴. Air Pollution has been identified as the largest cause of disease and premature death in the world³⁵. In addition, biodiversity loss which refers to the decline or disappearance of biological

²⁶ Ibid

²⁷ Posterity Institute., 'Action Steps for a Sustainable Lifestyle – Conscious Consumerism' Available at <https://www.theposterityinstitute.org/action-steps-for-a-sustainable-lifestyle-conscious-consumerism/> (Accessed on 17/05/2024)

²⁸ Ibid

²⁹ Ibid

³⁰ United Nations Climate Change., 'What is the Triple Planetary Crisis?' Available at <https://unfccc.int/news/what-is-the-triple-planetary-crisis> (Accessed on 17/05/2024)

³¹ Ibid

³² Ibid

³³ Ibid

³⁴ Ibid

³⁵ Ibid

diversity, which includes animals, plants and ecosystems has also been attributed to human activities³⁶. This problem is caused by activities such as overfishing, habitat loss as a result of deforestation, and desertification due to climate change³⁷. According to UNEP, the biggest driver of biodiversity loss is how people use the land and sea³⁸. This includes the conversion of land covers such as forests, wetlands and other natural habitats for agricultural and urban uses³⁹. It has been noted that biodiversity is the baseline for everything on the planet⁴⁰. Biodiversity loss impacts food supplies and access to clean water among other vital resources threatening our future on the planet⁴¹. It is therefore necessary to foster sustainable lifestyles in order to address the triple planetary crisis of climate change, pollution, and biodiversity loss.

Fostering sustainable lifestyles is therefore key for sustainability. It has been noted that current consumption patterns and lifestyles have been formed over centuries by our civilisation and are driven by economic forces, technological progress, political settings, environmental issues, sociological and cultural contexts and psychological determinants⁴². For example, economic development leads to improved productivity that leads to reduced products prices and increased incomes resulting in higher purchasing power⁴³. In addition, technological advances lead to supply of more efficient products and technologies and also create new visions for lifestyles or conditions, which could

³⁶ Ibid

³⁷ Ibid

³⁸ United Nations Environment Programme., 'Five Drivers of the Nature Crisis' Available at <https://www.unep.org/news-and-stories/story/five-drivers-nature-crisis#:~:text=The%20biggest%20driver%20of%20biodiversity,conversion%20to%20the%20land%20uses>. (Accessed on 17/05/2024)

³⁹ Ibid

⁴⁰ United Nations Climate Change., 'What is the Triple Planetary Crisis?' Op Cit

⁴¹ Ibid

⁴² United Nations., 'Sustainable Lifestyles and Education for Sustainable Consumption' Op Cit

⁴³ Ibid

stimulate people to adapt more resource intensive lifestyles⁴⁴. Further, it has been noted that socio-psychological drivers of current consumption patterns and lifestyles include personal motives and influences of the social environment⁴⁵. For example, people purchase goods and services for their qualities and functions, as much as for their symbolic value that serves as a marker of social status⁴⁶. Material possessions are often perceived as a measure of success, power and happiness in most societies⁴⁷. In addition, cultural and historical aspects also influence lifestyles and unspoken codes of conduct in each society⁴⁸. It is therefore important to understand these factors in order to foster sustainable lifestyles for posterity. Sustainable lifestyles entail understanding how our lifestyle choices impact the world around us and finding ways for everyone to live better⁴⁹.

3.0 Fostering Sustainable Lifestyles

The need to foster sustainable lifestyles is envisaged under Agenda 21 which advocates for new concepts of wealth and prosperity which allow higher standards of living through changed lifestyles and are less dependent on the Earth's finite resources⁵⁰. It has been noted that Agenda 21 paved the way for the emerging understanding that the sustainability challenge cannot be solved only by improving efficiency, but should also include behavioural changes⁵¹. In addition, the 2030 Agenda for Sustainable Development envisages the ideal of

⁴⁴ Ibid

⁴⁵ Ibid

⁴⁶ Ibid

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ United Nations Environment Programme., 'Sustainable Lifestyles' Op Cit

⁵⁰ United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992., 'Agenda 21.' Available at

https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf?_gl=1*9ui pp7*_ga*MjA2NDk2MDMxMS4xNjc4MjU5NTEw*_ga_TK9BQL5X7Z*MTY5NDU5NjE3MS41NS4xLjE2O TQ1OTgzODUuM C4wLjA (Accessed on 17/05/2024)

⁵¹ United Nations., 'Sustainable Lifestyles and Education for Sustainable Consumption' Op Cit

sustainable lifestyles for posterity⁵². SDG 12 urges humanity to embrace sustainable consumption and production patterns⁵³. It sets out several targets towards achieving this ideal including ensuring sustainable management and efficient use of natural resources⁵⁴; reducing food losses along production and supply chains; achieving environmentally sound management of chemicals and waste throughout their lifecycle⁵⁵; reducing waste generation through prevention, reduction, recycling, and reuse⁵⁶; promoting public procurement practices that are sustainable⁵⁷; ensuring that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature⁵⁸; and supporting developing countries to strengthen their scientific and technical capacity to move towards more sustainable patterns of consumption and production⁵⁹. It is imperative to achieve these targets in order to ensure sustainable lifestyles for posterity.

Africa Union's *Agenda 2063*⁶⁰ also seeks to ensure sustainable lifestyles in the continent. Among the key aspirations of Agenda 2063 is building a prosperous Africa, based on inclusive growth and Sustainable Development⁶¹. This aspiration seeks to ensure environmentally sustainable and climate resilient economies and communities in Africa⁶². Agenda 2063 sets out several priorities towards achieving this goal including promoting sustainable natural resource

⁵² United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

⁵³ Ibid

⁵⁴ Ibid

⁵⁵ Ibid

⁵⁶ Ibid

⁵⁷ Ibid

⁵⁸ Ibid

⁵⁹ Ibid

⁶⁰ Africa Union., 'Agenda 2063' Available at https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf (Accessed on 17/05/2024)

⁶¹ Ibid

⁶² Ibid

management, fostering biodiversity conservation, enhancing sustainable consumption and production patterns, achieving water security, enhancing climate resilience and natural disasters preparedness and prevention, and embracing renewable energy⁶³. Agenda 2063 acknowledges that in order to achieve sustainable consumption patterns in Africa, all households, communities, and government entities should be aware and lead sustainable life styles with respect to the use of water, electricity, and design/construction of houses⁶⁴. It further acknowledges that sustainable livelihoods and responsible citizenship are vital for Sustainable Development in Africa⁶⁵. Realizing the aspirations, goals, and priority actions set out under Agenda 2063 is therefore vital in fostering sustainable lifestyles for posterity in Africa.

Ensuring sustainable lifestyles is therefore a key agenda towards Sustainable Development. In order to achieve this goal, it is necessary to embrace responsible consumption and production patterns⁶⁶. According to the United Nations, ensuring sustainable consumption and production patterns is key to sustain the livelihoods of current and future generations⁶⁷. In order to achieve this goal, it is necessary for individuals to adopt more sustainable lifestyles. This can involve consuming less, choosing products with lower environmental impacts, and reducing the carbon footprint of day-to-day activities⁶⁸.

It has been correctly observed that promoting responsible consumption and production is a fundamental pillar of sustainability that directly impacts the well-

⁶³ Ibid

⁶⁴ Ibid

⁶⁵ Ibid

⁶⁶ United Nations., 'Goal 12: Ensure Sustainable Consumption and Production Patterns' Available at <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/> (Accessed on 17/05/2024)

⁶⁷ Ibid

⁶⁸ Ibid

being of future generations⁶⁹. It involves a shift in our mindset and practices towards using resources efficiently and minimizing waste⁷⁰. It has been opined that responsible consumption is not about sacrificing the quality of life that human beings live but rather making informed choices that benefit both the present and future generations for posterity⁷¹. Individuals should therefore prioritize responsible consumption and patterns including choosing products with sustainable and eco-friendly attributes, reducing energy and water consumption in households, minimizing food waste, and supporting local and sustainable agriculture⁷². Further, communities can play a pivotal role in promoting sustainable lifestyles through responsible consumption by establishing local initiatives and sharing resources⁷³. It has been noted that community gardens, tool-sharing programs, and bulk purchasing cooperatives are examples of community collaborative efforts that reduce waste and encourage responsible resource use towards sustainability⁷⁴. Further, it is vital for governments to implement and enforce policies and regulations towards responsible consumption and production through measures such as setting targets for reducing waste generation, promoting circular economy practices, and supporting sustainable procurement policies⁷⁵.

It is also necessary to enhance education and awareness on sustainable lifestyles⁷⁶. Fostering sustainable lifestyles requires educating individuals about

⁶⁹ The Posterity Advocacy Hub: Principle 2 Championing Sustainability., Available at <https://medium.com/@posterityadvocacyhub/the-posterity-advocacy-hub-principle-2-championing-sustainability-73c303723d2a> (Accessed on 17/05/2024)

⁷⁰ Ibid

⁷¹ Ibid

⁷² Ibid

⁷³ Ibid

⁷⁴ Ibid

⁷⁵ United Nations., 'Goal 12: Ensure Sustainable Consumption and Production Patterns' Op Cit

⁷⁶ The Posterity Advocacy Hub: Principle 2 Championing Sustainability., Op Cit

the environmental consequences of their choices⁷⁷. By raising awareness and providing information on sustainable practices, we can empower people to make more informed decisions and reduce their ecological footprint⁷⁸. The 2030 Agenda for Sustainable Development recognizes the role of education in fostering sustainable lifestyles⁷⁹. SDG 4 seeks to ensure inclusive and equitable quality education for all⁸⁰. Among the targets under this goal is to ensure that learners acquire the knowledge and skills needed to promote Sustainable Development including through education for Sustainable Development and sustainable lifestyles⁸¹. Strengthening education and awareness is therefore key in fostering sustainable lifestyles.

Another key approach towards fostering sustainable lifestyles is implementing circular economy⁸². Circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible⁸³. It is a system where materials never become waste and nature is regenerated⁸⁴. In a circular economy, products and materials are kept in circulation through processes like

⁷⁷ Ibid

⁷⁸ Ibid

⁷⁹ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

⁸⁰ Ibid

⁸¹ Ibid

⁸² United Nations., 'Goal 12: Ensure Sustainable Consumption and Production Patterns' Op Cit

⁸³ European Parliament., 'Circular Economy: Definition, Importance and Benefits.' Available at

<https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economydefinition-importance-andbenefits#:~:text=The%20circular%20economy%20is%20a,cycle%20of%20products%20is%20extended> (Accessed on 17/05/2024)

⁸⁴ Ellen MacArthur Foundation., 'What is a Circular Economy?.' Available at <https://www.ellenmacarthurfoundation.org/topics/circular-economyintroduction/overview#:~:text=The%20circular%20economy%20is%20a,remanufacture%2C%20recycling%2C%20and%20composting> (Accessed on 17/05/2024)

maintenance, reuse, refurbishment, remanufacture, recycling, and composting⁸⁵. According to the United Nations, transitioning to a circular economy involves designing products for longevity, repairability, and recyclability⁸⁶. It also involves promoting practices such as reusing, refurbishing, and recycling products to minimize waste and resource depletion⁸⁷. UNEP notes that circular economy is essential in achieving the SDGs and combating global challenges such as climate change, biodiversity loss, and pollution⁸⁸. It is therefore necessary to implement circular economy by embracing practices such as reducing, reusing, recycling, repairing, and refurbishment of materials and products⁸⁹. Promoting circular economy is a key pillar of sustainable lifestyles towards sustainability by minimizing waste and promoting sustainable use of natural resources⁹⁰. It is therefore necessary to implement circular economy in order to realize the ideal of sustainable lifestyles.

Finally, it is imperative to promote energy efficiency⁹¹. The idea of energy efficiency means using less energy to perform the same task therefore eliminating energy waste⁹². Energy efficiency achieves several benefits including reducing greenhouse gas emissions, reducing demand for energy imports, and lowering

⁸⁵ Ibid

⁸⁶ United Nations., 'Goal 12: Ensure Sustainable Consumption and Production Patterns' Op Cit

⁸⁷ Ibid

⁸⁸ United Nations Environment Programme., 'Circularity' Available at <https://www.unep.org/circularity> (Accessed on 17/05/2024)

⁸⁹ Ibid

⁹⁰ United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Available at <https://climatepromise.undp.org/news-and-stories/what-is-circular-economy-and-how-it-helps-fight-climate-change> (Accessed on 17/05/2024)

⁹¹ Environmental and Energy Study Institute., 'Energy Efficiency' Available at <https://www.eesi.org/topics/energy-efficiency/description#:~:text=Energy%20efficiency%20simply%20means%20using,hou%20and%20economy%2Dwide%20level.> (Accessed on 17/05/2024)

⁹² Ibid

energy costs on a household and economy-wide level⁹³. It has been noted that improving energy efficiency is one of the most cost-effective measures that countries can take to reduce greenhouse gas emissions⁹⁴. It is therefore necessary for individuals, communities, organizations, and countries to integrate energy efficiency into their sustainable production and consumption activities⁹⁵. Some of the key approaches that can be embraced towards energy efficiency include adopting renewable sources of energy including solar, and wind, utilizing clean sources of energy for cooking, conserving energy by turning off lights and appliances when not being used, investing in energy efficient appliances, and reducing energy consumption, designing and constructing energy efficient buildings, and embracing energy efficient modes of transport including cycling, walking, and public transport⁹⁶. Promoting energy efficiency is therefore vital in ensuring sustainable lifestyles and combating global environmental challenges including climate change and the energy crisis⁹⁷.

The foregoing techniques are key in fostering sustainable lifestyles for posterity.

4.0 Conclusion

Sustainable lifestyles are vital in minimizing ecological impacts while enabling a flourishing life for individuals, households, communities, and nations⁹⁸. The ideal of sustainable lifestyles entails activities and patterns aimed at promoting efficient use of natural resources, minimizing greenhouse gas emissions, and curbing waste and pollution⁹⁹. Human activities have been at the heart of major

⁹³ Ibid

⁹⁴ United Nations Environment Programme., 'About Energy Efficiency' Available at <https://www.unep.org/topics/energy/energy-efficiency/about-energy-efficiency> (Accessed on 17/05/2024)

⁹⁵ Ibid

⁹⁶ Ibid

⁹⁷ Ibid

⁹⁸ United Nations Environment Programme., 'Fostering and Communicating Sustainable Lifestyles: Principles and Emerging Practices' Op Cit

⁹⁹ United Nations Environment Programme., 'Sustainable Lifestyles' Op Cit

global challenges including the triple planetary crisis of climate change, pollution and biodiversity loss¹⁰⁰. Fostering sustainable lifestyles is therefore key in solving these problems and achieving the Sustainable Development agenda¹⁰¹. The ideal of sustainable lifestyles can be achieved through embracing responsible consumption and production patterns¹⁰²; enhancing education and awareness on sustainable lifestyles¹⁰³; implementing circular economy¹⁰⁴; and promoting energy efficiency¹⁰⁵. Fostering sustainable lifestyles is a key agenda that needs to be harnessed for posterity.

¹⁰⁰ United Nations Climate Change., 'What is the Triple Planetary Crisis?' Op Cit

¹⁰¹ Yamane. T., & Kaneko. S., 'Is the Younger Generation a Driving Force Toward Achieving the Sustainable Development Goals? Survey Experiments' Op Cit

¹⁰² United Nations., 'Goal 12: Ensure Sustainable Consumption and Production Patterns' Op Cit

¹⁰³ The Posterity Advocacy Hub: Principle 2 Championing Sustainability., Op Cit

¹⁰⁴ United Nations., 'Goal 12: Ensure Sustainable Consumption and Production Patterns' Op Cit

¹⁰⁵ Environmental and Energy Study Institute., 'Energy Efficiency' Op Cit

References

Africa Union., 'Agenda 2063' Available at

https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf

Ellen MacArthur Foundation., 'What is a Circular Economy?.' Available at

<https://www.ellenmacarthurfoundation.org/topics/circular-economyintroduction/overview#:~:text=The%20circular%20economy%20is%20a,remanufacture%2C%20recycling,%20and%20composting>

Environmental and Energy Study Institute., 'Energy Efficiency' Available at

<https://www.eesi.org/topics/energy-efficiency/description#:~:text=Energy%20efficiency%20simply%20means%20using,household%20and%20economy%2Dwide%20level.>

European Parliament., 'Circular Economy: Definition, Importance and Benefits.'

Available at

<https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economydefinition-importance-andbenefits#:~:text=The%20circular%20economy%20is%20a,cycle%20of%20products%20is%20extended>

Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' International Sustainable Development Law., Vol 1

Lubowiecki-Vikuk. A., Dabrowska. A., & Machnik. A., 'Responsible Consumer and Lifestyle: Sustainability Insights' Available at

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7442902/>

Posterity Institute., 'Action Steps for a Sustainable Lifestyle – Conscious

Consumerism' Available at <https://www.theposterityinstitute.org/action-steps-for-a-sustainable-lifestyle-conscious-consumerism/>

The Posterity Advocacy Hub: Principle 2 Championing Sustainability.,
Available at <https://medium.com/@posterityadvocacyhub/the-posterity-advocacy-hub-principle-2-championing-sustainability-73c303723d2a>

United Nations Climate Change., 'What is the Triple Planetary Crisis?'
Available at <https://unfccc.int/news/what-is-the-triple-planetary-crisis>

United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992., 'Agenda 21.' Available at
https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf?gl=1*9uipp7*_ga*MjA2NDk2MDMxMS4xNjcxMjU5NTEw*_ga_TK9BQL5X7Z*MTY5NDU5NjE3MS41NS4xLjE2OTQ1OTgzODUuM_C4wLjA

United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Available at <https://climatepromise.undp.org/news-and-stories/what-is-circular-economy-and-how-it-helps-fight-climate-change>

United Nations Environment Programme., 'About Energy Efficiency' Available at <https://www.unep.org/topics/energy/energy-efficiency/about-energy-efficiency>

United Nations Environment Programme., 'Circularity' Available at <https://www.unep.org/circularity>

United Nations Environment Programme., 'Five Drivers of the Nature Crisis' Available at <https://www.unep.org/news-and-stories/story/five-drivers-nature-crisis#:~:text=The%20biggest%20driver%20of%20biodiversity,conversion%20to%20other%20land%20uses>

United Nations Environment Programme., 'Fostering and Communicating Sustainable Lifestyles: Principles and Emerging Practices' Available at

https://wedocs.unep.org/bitstream/handle/20.500.11822/17016/fostering_Communicating_Sust_Lifestyles.pdf?sequence=1&isAllowed=y

United Nations Environment Programme., 'Sustainable Lifestyles' Available at <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-lifestyles>

United Nations Environment Programme., 'Why Sustainable Lifestyles Matter' Available at <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-lifestyles/why-sustainable-lifestyles>

United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

United Nations., 'Goal 12: Ensure Sustainable Consumption and Production Patterns' Available at <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

United Nations., 'Sustainable Lifestyles and Education for Sustainable Consumption' Available at <https://www.un.org/esa/sustdev/marrakech/gpaper2chap7.pdf>

United States Environmental Protection Agency., 'What is Sustainability?' Available at <https://www.epa.gov/sustainability/learn-about-sustainability>

World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

Yamane. T., & Kaneko. S., 'Is the Younger Generation a Driving Force Toward Achieving the Sustainable Development Goals? Survey Experiments' Available at

Fostering Sustainable Lifestyles for Posterity
Kariuki Muigua

(2024) Journal of cmsd Volume 11(5)

<https://www.sciencedirect.com/science/article/abs/pii/S0959652621001529?via=ihub>

Legislating to Protect and Compensate Whistleblowers in Kenya: An Appraisal of the Proposed Whistleblower Protection Bill, 2023

By: **Michael Sang***

Abstract

Whistleblowers are critical in the fight against corruption and misconduct, particularly in Kenya, where they reveal criminal activities and breaches of legal obligations in the public interest. However, whistleblowers often face severe retaliation, including threats, violence, and career setbacks. This paper examines the current and proposed legislation on whistleblower protection in Kenya. It assesses how effectively these laws protect whistleblowers against retaliation and encourage reporting of misconduct. The paper explores the legal and political context of whistleblowing in Kenya, highlighting key legislations such as the Bribery Act, 2016, and the treatment of notable whistleblowers like David Munyakei and John Githongo. It appraises the Whistleblower Protection Bill, 2023, focusing on its applicability to both public and private sectors, substantive legal guarantees, and the role of the Commission on Administration of Justice as the enforcer of whistleblower protections. Furthermore, the paper draws lessons from international experiences, including the United States of America's No FEAR Act, Australia's Corporations Act 2001, and South Africa's Protected Disclosures Act No 26 of 2000, to provide actionable recommendations for strengthening Kenya's whistleblower protection framework. The ultimate goal is to ensure that whistleblowers receive the protection and support they deserve, fostering a culture of integrity and accountability.

Keywords: Whistleblower Protection, Legislation, Kenya, Whistleblower Protection Bill, 2023

1. Introduction

Whistleblowers have proved to be one of the most effective actors in the fight

* LLM, University of Cape Town, South Africa; LLB, Moi University; PG Dip. in Law Kenya School of Law. The views expressed in this article are, of course, the authors' own and do not express the views of the institution to which he is affiliated.

against illegality, impunity, and endemic corruption in Kenya.¹ By disclosing information that reveals wrongdoing which they reasonably believe to constitute a criminal or statutory offense, or a breach of legal obligation, whistleblowers act in the public interest.² However, most whistleblowers have borne the brunt of severe backlash for their ethical and public-spirited disclosures. This backlash includes threats and use of physical violence against them, intimidation, and loss of career advancement prospects. Many have been forced to seek refuge outside the country.³

Currently, Kenyan law on whistleblowing is undergoing significant reform aimed at providing better protection for individuals who expose details of corruption and illegal activities within public and private entities.⁴ This paper examines the current and proposed legislation on whistleblower protection in Kenya. It assesses the extent to which these laws protect whistleblowers against retaliation and encourage the reporting of misconduct. In Section 2, the paper delves into the legal and political context of whistleblowing in Kenya. It highlights key legislations such as the Bribery Act, 2016, which requires private entities to establish internal whistleblowing procedures and imposes penalties for non-compliance. This section also provides a critical analysis of the actual treatment of whistleblowers in Kenya through notable cases such as the Goldenberg scandal, where whistleblower David Munyakei faced severe retaliation and died destitute, and the Anglo-Leasing scandal, where John Githongo had to flee the country due to threats and pressure. Additional cases like the NHIF Heist involving Salesio Thurania and the Maasai Mara University Heist involving Spencer Sankale further illustrate the perilous journey of whistleblowers in Kenya.

¹ Transparency International Kenya (2023) 'The Need for Whistleblower Protection Legislation in Kenya' available at <https://tikenya.org/2023/07/21/the-need-for-whistleblower-protection-legislation-in-kenya/> accessed 24 June 2024

² Ibid

³ Ibid

⁴ Ibid

Section 3 provides an in-depth appraisal of the Whistleblower Protection Bill, 2023. It discusses the Bill's applicability to both the public and private sectors, highlighting key provisions such as mandatory whistleblower policies (Sections 21-23), disclosure procedures (Section 12), protection against reprisal (Sections 24-27), and confidentiality and immunity (Sections 10, 28). This section underscores the Bill's comprehensive approach to creating a safer environment for whistleblowers and promoting transparency and accountability. In Section 4, the paper explores lessons that Kenya can learn from international experiences in strengthening whistleblower protection and compensation. The discussion includes an analysis of the United States of America's No FEAR Act, which mandates federal agencies to provide whistleblower training and report on their compliance with whistleblower protection laws. The paper also examines Australia's Corporations Act 2001, which mandates whistleblower policies for companies and provides robust protections and compensation mechanisms. Additionally, South Africa's Protected Disclosures Act No 26 of 2000 and its integration with the Companies Act No 71 of 2008 offer valuable insights into creating a consolidated and effective whistleblower protection framework.

By integrating these international best practices and addressing the gaps in the current legislative framework, Kenya can develop a robust system that not only protects whistleblowers but also incentivizes the reporting of misconduct, thereby fostering a culture of integrity and accountability. This paper aims to provide a comprehensive analysis and actionable recommendations to ensure that whistleblowers in Kenya receive the protection and support they deserve.

2. The Legal Context and Actual Treatment of Whistleblowers in Kenya

2.1 Legal and Political Context

Kenya's legal framework surrounding whistleblowing has seen significant developments, particularly with the enactment of the Bribery Act, 2016, and the recent introduction of the Whistleblower Protection Bill, 2023. This section discusses the legal provisions and political climate that shape the treatment of whistleblowers in Kenya.

Bribery Act, 2016

The Bribery Act, 2016, was a pivotal step in the fight against corruption in Kenya.⁵ It places an implicit expectation on private entities to establish internal whistleblowing procedures.⁶ The Act underscores the importance of having mechanisms in place for reporting and managing disclosures related to bribery and corruption within organizations. Section 9 of the Bribery Act, 2016,⁷ read together with Section 18, creates the offence of failing to formulate procedures related to a whistleblowing system. This provision specifically targets directors and senior officers of companies, holding them accountable for ensuring that their organizations have effective whistleblowing procedures. Non-compliance with this requirement attracts severe penalties, including a fine of up to Kshs 5 million or imprisonment for a term not exceeding ten years, or both. This legal mandate aims to foster a culture of transparency and accountability within private entities.

Whistleblower Protection Bill, 2023

The proposed Whistleblower Protection Bill, 2023, aims to further strengthen the legal protections available to whistleblowers. The Bill provides comprehensive procedures for the disclosure of information relating to improper conduct in both public and private sectors.⁸ It seeks to protect individuals who make such disclosures from victimization and retaliation, thereby encouraging more people to come forward with information on wrongdoing.⁹

The bill outlines several key provisions:

- **Disclosure Procedures:** Establishes clear procedures for making and managing disclosures, including anonymous disclosures.¹⁰

⁵ Ibid

⁶ Ibid

⁷ Bribery Act, 2016 sec 9 & 18

⁸ Whistleblower Protection Bill, 2023, section 12

⁹ Ibid

¹⁰ Whistleblower Protection Bill, 2023, Section 12

- **Whistleblower Policies:** Mandates public and private bodies to develop and implement whistleblower policies and procedures.¹¹
- **Protection against Reprisal:** Provides robust protection against reprisals in the workplace and in contractual relationships, ensuring that whistleblowers are not subject to adverse actions due to their disclosures.¹²
- **Confidentiality and Immunity:** Ensures the confidentiality of the whistleblower's identity and provides immunity from legal proceedings for disclosures made in good faith.¹³

Political Context

The political landscape in Kenya has been marked by a heightened awareness of the need to combat corruption and protect those who expose it.¹⁴ Whistleblowers have faced significant challenges, including threats, physical violence, intimidation, and career repercussions. Some have even sought refuge outside the country due to the severe backlash.¹⁵ The introduction of the Whistleblower Protection Bill, 2023, reflects a commitment by the Kenyan government to address these challenges and create a safer environment for whistleblowers. This legislative effort aligns with broader anti-corruption initiatives and demonstrates an understanding of the critical role that whistleblowers play in promoting integrity and accountability.

¹¹ Ibid sections 21-23

¹² Ibid sections 24-27

¹³ Ibid, sections 10 & 28

¹⁴ Onyango, G. (2021). Whistleblowing behaviours and anti-corruption approaches in public administration in Kenya. *Economic and Political Studies*, 9(2), 230-254.

¹⁵ Transparency International Kenya (2023) 'The Need for Whistleblower Protection Legislation in Kenya' available at <https://tikenya.org/2023/07/21/the-need-for-whistleblower-protection-legislation-in-kenya/> accessed 24 June 2024

2.2 Unfair and Unsatisfactory Treatment of Whistleblowers in Kenya

2.2.1 Goldenberg Whistleblower

David Munyakei, a clerk at the Central Bank of Kenya (CBK), became one of Kenya's most notable whistleblowers when he exposed the infamous Goldenberg scandal in the early 1990s. This scandal involved the fictitious export of gold and diamonds by Goldenberg International, which resulted in massive financial losses for the country.¹⁶ Munyakei's brave disclosure brought to light one of Kenya's largest corruption schemes, but his subsequent treatment highlighted the severe repercussions whistleblowers often face in Kenya.¹⁷ After uncovering the fraudulent activities, Munyakei informed trusted senior officials within the CBK and eventually took the risky step of leaking documents to opposition members of parliament, who then exposed the scandal publicly. This led to a national outcry and his arrest.

Despite being acquitted by a judge who ruled that he had no case to answer, Munyakei was fired from his job at the CBK.¹⁸ The aftermath of his whistleblowing was harsh and unforgiving. Munyakei moved to Mombasa for safety reasons and struggled to find stable employment.¹⁹ He worked in various low-paying jobs, including as an advertising agent and a sales representative.²⁰ Tragically, Munyakei lived in poverty and died in 2006 from pneumonia, a condition he could not afford to treat due to his financial hardships.²¹

Munyakei's story is a poignant example of the dire consequences faced by whistleblowers in Kenya. Despite his significant contribution to the fight against

¹⁶ Derrick Okubasu (2019) 'How Kenya's 1st Corruption WhistleBlower David Munyakei Met Tragic Death' available at <https://www.kenyans.co.ke/news/38725-how-kenyas-1st-corruption-whistleblower-met-tragic-death> accessed 24 June 2024

¹⁷ Ibid

¹⁸ Ibid

¹⁹ Ibid

²⁰ Ibid

²¹ Ibid

corruption, he received little support or protection and ultimately died destitute. His experience underscores the urgent need for comprehensive whistleblower protection legislation in Kenya to safeguard individuals who expose wrongdoing and ensure they do not suffer retaliation or impoverishment as a result of their courageous actions.

2.2.2 Anglo-Leasing Whistleblower

John Githongo, a former journalist and anti-corruption crusader, is one of Kenya's most prominent whistleblowers, renowned for his role in exposing the Anglo-Leasing scandal.²² The Anglo-Leasing scandal involved the fraudulent awarding of government contracts to non-existent firms, resulting in the misappropriation of millions of dollars intended for national security projects.²³ In 2003, Githongo was appointed as the Permanent Secretary for Governance and Ethics by then-President Mwai Kibaki. During his tenure, Githongo uncovered massive corruption involving high-ranking government officials, including Justice Minister Kiraitu Murungi.²⁴ His investigations revealed that funds were funneled to phantom companies like Anglo-Leasing, which purported to provide security equipment and services that were never delivered.²⁵

Githongo's revelations were met with severe backlash. He received death threats and faced immense pressure to halt his inquiries.²⁶ Despite the risks, he documented his findings meticulously, even recording conversations with implicated officials.²⁷ In 2005, fearing for his life, Githongo went into exile in the United Kingdom, where he continued to advocate against corruption and testify

²² Moses Kinyanjui (2022) 'John Githongo: The Persistent Kenyan Whistleblower Dreaded By Graft Kings' *Citizen Digital* available at <https://citizen.digital/news/john-githongo-the-persistent-kenyan-whistleblower-dreaded-by-graft-kings-n304428> accessed 24 June 2024

²³Ibid

²⁴ Ibid

²⁵ Ibid

²⁶ Ibid

²⁷ Ibid

about the scandal.²⁸ His exposé led to the resignation of several government officials and international scrutiny of Kenya's corruption practices.

Githongo's courageous actions earned him international recognition, including awards such as the International Anti-Corruption Excellence Award and the German-Afrika Prize for Leadership.²⁹ However, his whistleblowing also subjected him to legal battles and defamation suits, reflecting the precarious position of whistleblowers in Kenya who challenge entrenched corruption.³⁰ Githongo's experience underscores the critical need for robust legal protections for whistleblowers in Kenya, as highlighted in the proposed Whistleblower Protection Bill, 2023. His story illustrates both the potential impact of whistleblowing on governance and the significant personal and professional risks involved in exposing corruption.

2.2.3 NHIF Heist Whistleblower

Salesio Thurania, a human rights activist from Meru County, became widely known as a whistleblower after exposing significant fraud within the National Health Insurance Fund (NHIF).³¹ The scandal involved several private hospitals defrauding the NHIF by inflating medical bills and charging for services that were never provided, particularly targeting elderly patients suffering from arthritis.³² Following his exposure of the scam, Thurania received numerous threats to his life.³³ He reported these threats to the Nkubu Police Station and called for government protection, fearing for his safety and that of his family. The threats intensified after a damning investigative report aired on NTV, detailing

²⁸ Ibid

²⁹ Ibid

³⁰ Ibid

³¹ David Muchui (2023) 'NHIF heist: Whistle-blower claims life in danger' *Nation* available at <https://nation.africa/kenya/news/nhif-heist-whistle-blower-claims-life-in-danger-4278962> accessed 24 June 2024

³² Ibid

³³ Ibid

the fraudulent activities.³⁴ Thurania's wife received a chilling call from an unidentified person, warning that she would soon be a widow.³⁵

Thurania's courageous actions led to significant responses from government authorities. Health Cabinet Secretary Susan Nakhumicha ordered the closure of the implicated hospitals and initiated a comprehensive lifestyle audit of NHIF staff to ensure transparency and accountability.³⁶ Additionally, the Directorate of Criminal Investigations (DCI) began a thorough investigation into the scandal, with Thurania actively cooperating and providing evidence. Despite the personal risks and threats, Thurania has remained steadfast in his commitment to uncovering corruption and ensuring justice for the victims of the NHIF fraud.³⁷ His experience underscores the urgent need for robust protections for whistleblowers in Kenya, as highlighted by the proposed Whistleblower Protection Bill, 2023, which aims to offer legal safeguards and support for individuals who expose wrongdoing.

2.2.4 Maasai Mara Heist Whistleblower

Spencer Sankale, the whistleblower in the Maasai Mara University Heist, faced severe repercussions after exposing a significant financial scandal at the institution.³⁸ As the Chief Finance Officer, Sankale revealed how senior management officials, including Vice-Chancellor Prof. Mary Walingo, embezzled approximately Kshs 177 million through fraudulent schemes.³⁹ His courageous actions brought the corruption to light through a Citizen TV exposé named "Mara

³⁴ Ibid

³⁵ Ibid

³⁶ Ibid

³⁷ Ibid

³⁸ Emmanuel Wanjala (2023) 'Koome appoints Mara Heist whistleblower Sankale to Tax Tribunal' *The Star* available at <https://www.the-star.co.ke/news/2023-05-19-koome-appoints-mara-heist-whistleblower-sankale-to-tax-tribunal/> accessed 24 June 2024

³⁹ Ibid

Heist.⁴⁰ In June 2021, following his revelations, Sankale was dismissed from his position at Maasai Mara University.⁴¹ The university council accused him of nine offenses, including incitement of staff and the public against the university, gross insubordination, defamation, and disregard for university standards and procedures.⁴² Sankale maintained that these charges were a direct result of his whistleblowing activities and were intended to silence him for exposing the corruption.⁴³

After being jobless for nearly two years, Sankale's integrity and commitment to fighting corruption were recognized when Chief Justice Martha Koome appointed him as a member of the Tax Appeals Tribunal in May 2023.⁴⁴ This appointment marked a significant turnaround in his fortunes, acknowledging his bravery in standing up against graft despite the personal and professional risks involved.⁴⁵ Sankale's experience highlights the dire need for robust legal protections for whistleblowers in Kenya, as they often face severe retaliation and victimization for their ethical and public-spirited actions. The proposed Whistleblower Protection Bill, 2023, aims to address these challenges by providing comprehensive safeguards for individuals like Sankale who expose corruption and wrongdoing within public and private entities.

3. An Appraisal of the Whistleblower Protection Bill, 2023

3.1 Applicability to Public and Private Sector

The Whistleblower Protection Bill, 2023, is designed to provide a comprehensive framework for the protection of whistleblowers within both the public and

⁴⁰ Emmanuel Wanjala (2023) 'Koome appoints Mara Heist whistleblower Sankale to Tax Tribunal' *The Star* available at <https://www.the-star.co.ke/news/2023-05-19-koome-appoints-mara-heist-whistleblower-sankale-to-tax-tribunal/> accessed 24 June 2024

⁴¹ Ibid

⁴² Ibid

⁴³ Ibid

⁴⁴ Ibid

⁴⁵ Ibid

private sectors in Kenya.⁴⁶ The Bill outlines several key provisions that ensure the effective application of its mandates across these sectors.

Public Sector

The Bill applies to all public bodies, which include the national and county governments, any department, state organ, agency, service, or undertaking of the national or county government.⁴⁷ This broad definition ensures that all government entities are encompassed within the scope of the Bill.⁴⁸ Additionally, it covers the County Assemblies and any corporation, council, board, commission, committee, or other body that acts under any written law related to the national government or county governments.⁴⁹

Private Sector

For the private sector, the Bill stipulates that it applies to any private entity determined by the Commission.⁵⁰ This includes entities listed on the Nairobi Securities Exchange, those whose operations affect the public interest, those possessing information of public interest, entities engaged in business with the government or any public entity, and private academic institutions of higher learning.⁵¹

Key Provisions for Both Sectors

- **Duty to Develop and Implement Whistleblower Policies:** Both public and private bodies are required to develop and implement whistleblower policies and procedures appropriate to their size and the nature of their

⁴⁶ Whistleblower Protection Bill, 2023, long title

⁴⁷ Ibid, sec 3

⁴⁸ Ibid

⁴⁹ Ibid, sec 9 & 33

⁵⁰ Ibid, sec 3 & 5

⁵¹ Onyango, G. (2021). Whistleblowing behaviours and anti-corruption approaches in public administration in Kenya. *Economic and Political Studies*, 9(2), 230-254.

operations.⁵² These policies must be in line with guidelines issued by the Commission within six months of the Act coming into force.⁵³

- **Procedures for Disclosures:** The Bill outlines clear procedures for making disclosures, ensuring confidentiality, and protecting whistleblowers from reprisals.⁵⁴ Public and private bodies must ensure that information about the Act and the established procedures is widely communicated to their employees.⁵⁵
- **Failure to Comply:** Any public or private body that fails to develop and put in place the required whistleblower policies and procedures is committing an offense.⁵⁶ However, it is a defense if the body can prove that it had adequate procedures designed to facilitate whistleblowing and prevent improper conduct.⁵⁷

By setting these requirements, the Whistleblower Protection Bill, 2023, aims to create a robust framework that encourages disclosures of improper conduct while providing comprehensive protection to whistleblowers across both the public and private sectors.⁵⁸ This approach not only promotes transparency and accountability but also ensures that whistleblowers are safeguarded from retaliation, thereby fostering a culture of integrity and ethical behavior in all areas of governance and business.⁵⁹

3.2 Substantive Legal Guarantees for Whistleblowers

3.2.1 Confidentiality of Information

The Whistleblower Protection Bill, 2023, places a strong emphasis on the

⁵² Whistleblower Protection Bill, 2023, Sections 21 and 22.

⁵³ Ibid

⁵⁴ Ibid Section 13

⁵⁵ Ibid

⁵⁶ Ibid Section 23

⁵⁷ Ibid

⁵⁸ Ibid

⁵⁹ Ibid

confidentiality of information disclosed by whistleblowers.⁶⁰ Section 28 mandates that any person who makes or receives a disclosure, or obtains confidential information in the course of an investigation, must not disclose this information to any other person.⁶¹ This provision ensures that the identity and location of the whistleblower and any other person entitled to protection remain confidential, safeguarding them from potential reprisals and maintaining the integrity of the investigation.

3.2.2 Immunity from Civil and Criminal Liability Relating to Disclosure

Section 24(1) (b) of the Bill grants whistleblowers immunity from civil or criminal liability in relation to the disclosures they make.⁶² This immunity is crucial as it protects whistleblowers from legal repercussions that could arise from their disclosures, encouraging more individuals to come forward with information on improper conduct without fear of legal consequences. This provision aims to remove one of the significant barriers to whistleblowing, thus fostering an environment of transparency and accountability.

3.2.3 Protection of Whistleblowers against Retaliation

The Bill provides comprehensive protections against retaliation for whistleblowers. Section 24(1) (c) entitles whistleblowers to protection against any form of reprisal. This includes protection from workplace reprisals such as termination, suspension, demotion, or any other adverse treatment in relation to a person's employment, career, or business due to their whistleblowing activities.⁶³ Additionally, Section 27 outlines the process for whistleblowers to lodge complaints of reprisal with the Commission. The Bill criminalizes acts of reprisal, imposing severe penalties on individuals or entities found guilty of retaliating against whistleblowers, including fines and imprisonment.⁶⁴

These substantive legal guarantees are designed to provide a secure and

⁶⁰ Ibid, section 28

⁶¹ Ibid, section 28

⁶² Ibid, section 24(1)(b)

⁶³ Ibid, section 24(1)(c)

⁶⁴ Ibid, section 27

supportive environment for whistleblowers, ensuring that they can report wrongdoing without fear of retaliation, thereby strengthening the fight against corruption and improper conduct in Kenya.

3.3 Whistleblower Reward Fund

The Whistleblower Protection Bill, 2023, includes provisions for the establishment of a Whistleblower Reward Fund to provide monetary incentives to individuals who disclose information about improper conduct. The Whistleblower Reward Fund is established under Section 34 of the Bill. The Fund is intended to incentivize whistleblowers to come forward with information about improper conduct by providing them with financial rewards. The Fund's sources include monies appropriated by the National Assembly, grants, donations, gifts from non-governmental or non-public sources, income generated by investments made by the Board of Trustees, interest accruing from the Fund, and any other monies from any other source.⁶⁵

The primary objective of the Fund, as outlined in Section 36, is to provide monetary rewards to whistleblowers whose disclosures lead to the recovery of money or assets, or the arrest and conviction of the accused persons⁶⁶. This approach is designed to encourage individuals to report wrongdoing by offering tangible benefits for their courage and integrity in exposing corruption and other improper conduct.

Reward on Conviction and Recovery

Section 37 specifies that a whistleblower who makes a disclosure that results in the arrest and conviction of an accused person will be rewarded from the Fund.⁶⁷ Additionally, Section 38 states that a whistleblower whose disclosure leads to the recovery of an amount of money or asset will also be rewarded from the Fund. These provisions ensure that whistleblowers are compensated for their

⁶⁵ Ibid, section 34

⁶⁶ Ibid, section 36

⁶⁷ Ibid, section 37

contributions to upholding justice and transparency in both public and private sectors.

The inclusion of the Whistleblower Reward Fund in the Bill underscores the recognition of the significant risks and sacrifices made by whistleblowers. By providing financial incentives, the Bill aims to mitigate some of these risks and encourage more individuals to report improper conduct without fear of financial repercussions. This initiative not only supports whistleblowers but also strengthens the overall framework for combating corruption and promoting ethical behavior in Kenya.

3.4 Offence of Failure to Disclose

The Whistleblower Protection Bill, 2023, addresses the critical issue of mandatory disclosure and sets out specific penalties for failing to disclose information related to improper conduct.⁶⁸ This provision aims to enforce accountability and ensure that individuals who are aware of wrongdoing are legally obligated to report it.

Obligation to Make Disclosure

Under Section 42 of the Bill, any person who has information about improper conduct that has occurred, is occurring, or is likely to occur, and who fails to disclose this information commits an offence. This obligation applies to employees or any person within a public or private body who reasonably believes that the information they possess constitutes evidence of improper conduct.⁶⁹ The Bill imposes strict penalties for individuals who fail to fulfill this disclosure obligation. Section 42 outlines that a person convicted of failing to disclose such information is liable to imprisonment for a term not exceeding fourteen years, a fine not exceeding ten million shillings, or both. This significant penalty reflects the seriousness with which the law treats the failure to report improper conduct, emphasizing the importance of proactive measures in

⁶⁸ Ibid, Sec 42

⁶⁹ Ibid, section 42

combating corruption and other forms of wrongdoing.

The rationale behind this provision is to foster a culture of transparency and integrity within organizations. By mandating disclosure and imposing penalties for non-compliance, the Bill aims to deter individuals from concealing information about misconduct. This, in turn, supports the overall goal of enhancing accountability and ethical behavior in both the public and private sectors. The Bill also provides for defenses against the charge of failing to disclose. Section 42(2) states that it is a defense for a public or private body to prove that it had in place adequate procedures designed to facilitate whistleblowing and prevent improper conduct.⁷⁰ This clause ensures that organizations are encouraged to implement robust internal mechanisms for reporting and managing disclosures.

3.4 Commission on Administration of Justice as Enforcer of Whistleblower Protection

The Whistleblower Protection Bill, 2023, designates the Commission on Administration of Justice (CAJ) as the primary enforcer of the whistleblower protection framework. Under Section 7, the CAJ is endowed with several critical functions to ensure the effective implementation of the Act:⁷¹

- **Oversight and Enforcement:** The CAJ is responsible for overseeing and enforcing compliance with the provisions of the Whistleblower Protection Bill. This includes investigating disclosures of improper conduct and ensuring that public and private bodies adhere to the established procedures for whistleblowing.⁷²
- **Public Awareness and Education:** The CAJ is tasked with undertaking public awareness campaigns to educate citizens about the provisions and benefits of the Act. This role is crucial for fostering a culture of

⁷⁰ Ibid, section 42(2)

⁷¹ Ibid, section 7

⁷² Ibid

transparency and encouraging individuals to come forward with information on improper conduct.⁷³

- **Guidelines and Approval:** The CAJ is required to develop guidelines for public and private entities to establish whistleblower mechanisms, policies, and procedures. It also has the authority to approve these mechanisms to ensure they meet the standards set forth in the Bill.⁷⁴
- **Incentive Programs:** The CAJ is responsible for developing and implementing incentive programs, including making orders for monetary awards to whistleblowers from the Whistleblower Reward Fund.⁷⁵

Powers of the Commission

The CAJ is granted substantial powers under the Bill to fulfill its mandate:

- **Investigation Powers:** The CAJ has the authority to investigate disclosures and complaints of reprisals. It can refuse to investigate if it determines the allegations are frivolous, vexatious, or made in bad faith, provided it communicates the reasons for such refusal to the person making the disclosure.⁷⁶
- **Collaboration with Other Agencies:** The CAJ may work in cooperation with other enforcement agencies and individuals as necessary to investigate and act on disclosures of improper conduct.⁷⁷
- **Protection Orders:** The CAJ can issue orders for interim and final relief to protect whistleblowers. These include referrals to the Witness Protection Agency, reinstatement to positions lost due to reprisal, and compensation for loss of income.⁷⁸

⁷³ Ibid

⁷⁴ Ibid, section 7(f) and (g)

⁷⁵ Ibid, Section 7(h)

⁷⁶ Ibid, Section 8

⁷⁷ Ibid, Section 9

⁷⁸ Ibid, Section 29

Annual Reporting

To ensure transparency and accountability, Section 48 of the Bill requires the CAJ to submit an annual report to the National Assembly. This report must detail the number of disclosures received, investigations conducted, and outcomes, as well as any systemic issues identified and recommendations for improvement.

4. Strengthening Whistleblower Protection and Compensation in Kenya: Lessons from Comparative Experience

4.1 United States of America

4.1.1 Notification and Federal Employee Antidiscrimination and Retaliation Act 2002 (No FEAR Act)

The Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002, commonly known as the No FEAR Act, is a significant piece of legislation in the United States of America designed to protect federal employees from discrimination and retaliation. Key provisions of the No FEAR Act include:

- **Accountability and Reporting:** Federal agencies are required to be accountable for violations of anti-discrimination and whistleblower protection laws. This includes reimbursing the Judgment Fund for any settlements or judgments related to discrimination or retaliation claims.⁷⁹
- **Employee Notification:** Agencies must notify employees, former employees, and applicants of their rights and remedies under anti-discrimination and whistleblower protection laws. This notification must be provided both in written form and through agency websites.⁸⁰

⁷⁹ Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002, Section 201

⁸⁰ Ibid Sections 202 and 203

- **Training:** Federal agencies are mandated to provide training to employees on their rights and remedies under the relevant laws at least every two years.⁸¹
- **Annual Reporting:** Agencies must submit annual reports to Congress and other relevant bodies detailing cases of discrimination and retaliation, including the status and disposition of these cases, disciplinary actions taken, and steps to improve compliance with the laws.⁸²

4.1.2 Lessons for Kenya

1. Explicit Right of Whistleblowers to Request State Protection- Incorporating an explicit right for whistleblowers to request state protection when they reasonably believe their lives or personal security, or those of their immediate family members, are at risk is crucial.⁸³ This could be modeled after provisions in the No FEAR Act that emphasize the protection and support of federal employees facing retaliation.

2. Procedures for Physical Protection, Relocation, and Non-Disclosure- Establishing detailed procedures for the physical protection, relocation, and non-disclosure of identities and whereabouts of whistleblowers would significantly enhance their security.⁸⁴ The Kenyan Whistleblower Protection Bill could benefit from implementing such comprehensive measures to ensure the safety and confidentiality of whistleblowers.

3. Criminal Offence for Ignoring Disclosures - Making it a criminal offense to deliberately ignore disclosures by whistleblowers would enforce accountability and ensure that disclosures are taken seriously. This approach aligns with the No

⁸¹ Ibid Section 203(c)

⁸² Ibid, Section 203

⁸³ Onyango, G. (2021). Whistleblowing behaviours and anti-corruption approaches in public administration in Kenya. *Economic and Political Studies*, 9(2), 230-254.

⁸⁴ Ibid

FEAR Act's emphasis on holding federal agencies accountable for violations of whistleblower protection laws.

4. Provision of Financial Incentives - The provision of financial incentives to encourage whistleblowing can be highly effective. The Kenyan Bill can take inspiration from the Whistleblower Reward Fund mechanism (Section 34), similar to the No FEAR Act's reimbursement requirements and protections, which encourage disclosures by ensuring financial security and compensation for whistleblowers.

4.2 Australia

4.2.1 Corporations Act 2001

Protection and Compensation of Whistleblowers

The Corporations Act 2001, specifically under Part 9.4AAA, provides comprehensive protections and compensation mechanisms for whistleblowers.⁸⁵ It ensures that individuals who report misconduct within corporations are protected against retaliation and can seek compensation if they suffer detriment due to their disclosures.⁸⁶ The Act covers disclosures related to misconduct, an improper state of affairs, or breaches of specific laws that pose a danger to the public or financial system.

Mandatory Whistleblower Policies - Section 1317AI of the Corporations Act mandates that public companies, large proprietary companies, and certain proprietary companies have whistleblower policies.⁸⁷ These policies must include information about protections available to whistleblowers, the procedures for making and handling disclosures, and measures to support and protect whistleblowers from detrimental conduct. Failure to comply with this requirement is a criminal offense, with penalties outlined in Section 1311(1).

⁸⁵ Corporations Act 2001, Part 9.4AAA

⁸⁶ Ibid, Sections 1317AA to 1317AE

⁸⁷ Ibid, Section 1317AI

Amendments in 2023 to Victimization and Compensation Provisions - The 2023 amendments to the Corporations Act have strengthened the victimization and compensation provisions. Courts can consider whether employers took reasonable precautions to prevent detrimental conduct and effectively implemented whistleblower policies. These amendments ensure robust compensation mechanisms for whistleblowers who suffer harm due to victimization.⁸⁸

Emergency and Public Interest Disclosures - The Act allows for emergency disclosures to parliamentarians and journalists if the information concerns substantial or imminent danger to health and safety or the environment.⁸⁹ Additionally, it provides for public interest disclosures under specific criteria, ensuring that significant issues are brought to light even when internal mechanisms fail.⁹⁰

4.2.2 Public Interest Disclosure Act 2013

The Public Interest Disclosure Act 2013 offers extensive protections for whistleblowers in the public sector.⁹¹ It covers disclosures related to corruption, maladministration, and abuse of authority within public service.⁹² The Act aims to encourage transparency and accountability by protecting individuals who expose misconduct and ensuring they are not subjected to retaliation.⁹³

4.2.3 Lessons for Kenya

Consolidation of Whistleblower Legislation- Kenya can benefit from consolidating its whistleblower legislation to establish uniform standards for protected disclosures across public and private sectors. This approach ensures consistent protections and procedures, fostering a more comprehensive and

⁸⁸ Ibid, Section 1317ADA

⁸⁹ Ibid, Section 1317AAD

⁹⁰ Ibid, Section 1317AAD

⁹¹ Ibid, sec 10

⁹² Ibid, sec 29

⁹³ Ibid, Sections 10-11

effective whistleblower protection framework.⁹⁴

Compensation for Loss, Damage, or Injury- Recognizing the need for compensation for whistleblowers who suffer loss, damage, or injury due to their disclosures is crucial.⁹⁵ This can be modeled after the compensation provisions in the Corporations Act, which allow whistleblowers to seek damages for any detriment suffered due to their disclosures (Section 1317ADA).

Sanctions for Breach of Confidentiality - Imposing criminal or civil sanctions against individuals who breach a whistleblower's confidentiality or cause detriment due to their disclosure is essential.⁹⁶ This creates a deterrent effect and reinforces the importance of protecting whistleblowers' identities and safety.⁹⁷

Procedural Remedies - Providing procedural remedies for whistleblowers to file complaints with an ombudsman or similar body if they suffer detrimental action due to their disclosures is important. This mechanism ensures that whistleblowers have a clear and accessible avenue for seeking redress and protection.⁹⁸

4.3 South Africa

4.3.1 Protected Disclosures Act No 26 of 2000

The Protected Disclosures Act No 26 of 2000 (PDA) in South Africa is a comprehensive piece of legislation aimed at protecting employees in both the private and public sectors who disclose information about unlawful or irregular conduct.⁹⁹ This Act provides the framework for making such disclosures and safeguards against occupational detriment, ensuring that whistleblowers are not unfairly treated as a result of their actions. It requires employers to establish

⁹⁴ Odhiambo, M. A. (2022). *Evaluation of the effectiveness of whistle blowing as a corruption intervention mechanism in the public sector: the case of Mombasa Ethics and Anti-Corruption Commission in Kenya* (Doctoral dissertation, Africa Nazarene University).

⁹⁵ Ibid

⁹⁶ Ibid

⁹⁷ Ibid

⁹⁸ Ibid

⁹⁹ Protected Disclosures Act No 26 of 2000

procedures for managing whistleblower reports and provides statutory protections against discrimination and dismissal for employees who make protected disclosures.

In addition to the PDA, Section 159 of the Companies Act No 71 of 2008 complements these protections by specifically addressing the issue within the corporate context. This section mandates that companies establish mechanisms for whistleblowing and ensures that disclosures are properly managed and protected, enhancing the overall framework established by the PDA.¹⁰⁰

4.3.2 Lessons for Kenya

Requirement for All Public and Private Entities to Establish Procedures - One key lesson from South Africa is the statutory requirement for all public and private entities to establish procedures for receiving and addressing whistleblower reports. This ensures that there are clear, standardized processes in place for handling disclosures, which can significantly enhance the effectiveness of whistleblower protections and encourage more individuals to come forward with information about misconduct.¹⁰¹

Statutory Protection against Discrimination and Dismissal - Another important lesson is the provision of statutory protection against discrimination and dismissal of employees who make protected disclosures. In South Africa, such dismissals are regarded as unfair, offering strong deterrents against retaliatory actions by employers.¹⁰² This level of protection is critical for ensuring that whistleblowers do not face adverse consequences for their actions.

Protection Against Occupational Detriment - The PDA also offers protection against occupational detriment, which includes any form of workplace retaliation

¹⁰⁰ Companies Act No 71 of 2008 Section 159

¹⁰¹ Onyango, G. (2021). Whistleblower protection in developing countries: a review of challenges and prospects. *SN Business & Economics*, 1(12), 169.

¹⁰² Ibid

such as demotion, harassment, or any other negative consequences that may arise from making a disclosure.¹⁰³ This comprehensive protection framework helps create a safer environment for whistleblowers and reinforces the importance of addressing and preventing misconduct within organizations.¹⁰⁴

Conclusion

The protection and compensation of whistleblowers are crucial components in the fight against corruption and misconduct in Kenya.¹⁰⁵ Whistleblowers, who act in the public interest by exposing criminal or statutory offenses and breaches of legal obligations, have historically faced severe retaliation, including threats, violence, and career setbacks. This hostile environment underscores the urgent need for robust legal frameworks that safeguard these individuals. The proposed Whistleblower Protection Bill, 2023, represents a significant step forward in addressing these challenges. By establishing comprehensive procedures for disclosure, mandating the creation of whistleblower policies in both public and private sectors, and providing protections against reprisals, the Bill aims to create a safer and more supportive environment for whistleblowers.¹⁰⁶ Key provisions of the Bill, such as confidentiality protections, immunity from civil and criminal liability, and protections against occupational detriment, are designed to encourage more individuals to come forward with information on misconduct.¹⁰⁷ Learning from international experiences, such as the United States of America's No FEAR Act and Australia's Corporations Act 2001, further highlights the importance of strong legal protections, mandatory whistleblower policies, and compensation mechanisms. South Africa's Protected Disclosures Act No 26 of 2000, read together with Section 159 of the Companies Act No 71 of 2008, provides additional insights into the effective integration of whistleblower

¹⁰³ Ibid

¹⁰⁴ Ibid

¹⁰⁵ Onyango, G. (2018). Whistleblowing and Anti-Corruption Behaviors in Public Administration in Developing Contexts: A Case of Local-Governance in Kenya. *Available at SSRN 3242774*.

¹⁰⁶ Ibid

¹⁰⁷ Ibid

protections across both public and private sectors. By adopting these best practices and strengthening its legislative framework, Kenya can foster a culture of integrity and accountability. This will not only protect whistleblowers but also incentivize the reporting of misconduct, ultimately contributing to the reduction of corruption and the promotion of good governance.

The recommendations outlined in this paper provide a roadmap for enhancing whistleblower protections in Kenya. Implementing these measures will ensure that whistleblowers receive the support and protection they deserve, enabling them to continue their vital role in the fight against corruption and other forms of wrongdoing.

References

Bribery Act, 2016

Companies Act No 71 of 2008

Corporations Act 2001

David Muchui (2023) 'NHIF heist: Whistle-blower claims life in danger' *Nation* available at <https://nation.africa/kenya/news/nhif-heist-whistle-blower-claims-life-in-danger-4278962>

Derrick Okubasu (2019) 'How Kenya's 1st Corruption WhistleBlower David Munyakei Met Tragic Death' available at <https://www.kenyans.co.ke/news/38725-how-kenyas-1st-corruption-whistleblower-met-tragic-death>

Emmanuel Wanjala (2023) 'Koome appoints Mara Heist whistleblower Sankale to Tax Tribunal' *The Star* available at <https://www.the-star.co.ke/news/2023-05-19-koome-appoints-mara-heist-whistleblower-sankale-to-tax-tribunal/>

Moses Kinyanjui (2022) 'John Githongo: The Persistent Kenyan Whistleblower Dreaded By Graft Kings' *Citizen Digital* available at <https://citizen.digital/news/john-githongo-the-persistent-kenyan-whistleblower-dreaded-by-graft-kings-n304428>

Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002

Odhiambo, M. A. (2022). *Evaluation of the effectiveness of whistle blowing as a corruption intervention mechanism in the public sector: the case of Mombasa Ethics and Anti-Corruption Commission in Kenya* (Doctoral dissertation, Africa Nazarene University).

Legislating to Protect and Compensate Whistleblowers in Kenya: An Appraisal of the Proposed Whistleblower Protection Bill, 2023 - Michael Sang (2024) *Journal of cmsd Volume 11(5)*

Onyango, G. (2021). Whistleblower protection in developing countries: a review of challenges and prospects. *SN Business & Economics*, 1(12), 169.

Onyango, G. (2021). Whistleblowing behaviours and anti-corruption approaches in public administration in Kenya. *Economic and Political Studies*, 9(2), 230-254.
Protected Disclosures Act No 26 of 2000

Transparency International Kenya (2023) 'The Need for Whistleblower Protection Legislation in Kenya' available at <https://tikenya.org/2023/07/21/the-need-for-whistleblower-protection-legislation-in-kenya/>
Whistleblower Protection Bill, 2023

The Phenomena of Resource Curse and How to Navigate around it

By: **Bona Bol Madut Ayii***

Abstract

This article undertakes a critical analysis of the 'resource curse' the idea that mineral and fuel abundance generates poor economic performance in less developed countries. It examines the proposition that mineral and fuel abundance generate growth-restricting forms of state intervention and extraordinarily large degrees of rent seeking and corruption, which are generally argued to be negative in terms of the economic growth outcomes they generate. The analysis surveys the Dutch Disease, conflict and rent-seeking versions of the resource curse and finds the various strategies to navigate through resource curse.

Keywords: resource curse, paradox of plenty, Dutch disease, Governance and corruption, economic dependence, Social and environmental problems, conflict.

Introduction

The resource curse, also known as the paradox of plenty, describes the counterintuitive situation where countries rich in natural resources often experience less economic growth and worse development outcomes than those with fewer natural resources.¹ While one might expect to see better development outcomes after countries discover natural resources, resource-rich countries tend to have higher rates of conflict and authoritarianism, and lower rates of economic stability and economic growth, compared to their non-resource-rich neighbors.² This article describes political and economic theories about why some resource rich countries do not do as well as expected. South Sudan, a nation endowed with vast oil reserves, presents a poignant case study of this phenomenon. This article

* **Bona Bol Madut Ayii** holds LLM in Environmental and Natural resources law from University of Nairobi and General LLM from University of Juba. Bol Madut is a researcher on environmental justice, Environmental sustainability and climate change. Bolayii93@gmail.com. WhatsApp +211916663246

delves into the complexities of the resource curse in South Sudan, examines its profound human impacts, and explores strategies to mitigate its adverse effects.

Understanding the Resource Curse

The resource curse theory advances several mechanisms through which resource wealth can hinder development:

1. **Economic Dependence:** Overreliance on a single resource sector can lead to economic volatility and underdevelopment in other sectors.³
2. **Dutch Disease:** Resource booms can appreciate a country's currency, making other export sectors less competitive.⁴
3. **Governance and Corruption:** Resource wealth often leads to corruption, weak institutions, and rent-seeking behavior.⁵
4. **Conflict:** Resource wealth can exacerbate or trigger violent conflicts.⁶

Inefficient spending and borrowing: The amount that governments collect in resource revenues can change drastically from year to year because of changes in commodities prices and production.* Several studies have shown that it is very difficult to effectively spend fluctuating and unpredictable revenues.⁷ Governments often get trapped in boom-bust cycles where they spend on legacy projects, such as airports and monuments, when revenues are rising and then must make painful cuts when revenues decline.⁸ Resource-rich governments have a tendency to over-spend on government salaries, inefficient fuel subsidies and large monuments and to underspend on health, education and other social

³ The resource-based Kuznets curve hypothesis: An empirical exploration.

⁴ Kai Chen; commodity Currency reactions and the Dutch disease: the role of capital controls.

⁵ George T. Abed and Sanjeev Gupta; Governance, Corruption, & Economic Performance.

⁶ Natural Resources, Conflict, and Conflict Resolution.

⁷ The Political and Economic Challenges of Natural Resource Wealth; The Resource Curse.

⁸ Ibid.

services.⁹ In addition, governments often over-borrow because they have improved credit-worthiness when revenues are high.¹⁰ This type of behavior led to debt crises when revenues declined in Mexico, Nigeria and Venezuela in the 1980s.¹¹ The private sector can be similarly impacted, as it can over-invest in boom times and then experience widespread bankruptcy during busts.¹²

Patriarchy and gender-based challenges: Natural resource wealth seems to disproportionately impact women. Recent research indicates that oil-rich countries tend to have fewer women in the workforce and a smaller representation of women in government.¹³ One explanation for this is that industries that are usually easier for women to enter, such as export-oriented manufacturing, are less likely to succeed in resource-rich countries because of Dutch disease.¹⁴ In addition, studies have shown that women in resource-rich regions often have higher rates of HIV/AIDS and other life-threatening diseases.¹⁵ The large influx of men to communities surrounding a mine has also been associated with an increase in rates of gender-based violence.¹⁶ This trend is particularly concerning as study after study shows that gender reforms are key to lasting poverty reduction.¹⁷ To address this, researchers suggest countries take steps to protect manufacturing through avoiding Dutch disease and that governments surrounding resource-rich areas include gender perspectives in

⁹ The Political and Economic Challenges of Natural Resource Wealth.

¹⁰ The Fiscal and Financial Risks of a High-Debt, Slow-Growth World.

¹¹ Ibid.

¹² Emma Gilberthorpe, Elissaia Papyrakis; *The extractive industries and development: The resource curse at the micro, meso and macro levels.*

¹³ Ibid.

¹⁴ James Cust, Shantayanan Devarajan; *Dutch Disease and the Public Sector: How Natural Resources Can Undermine Competitiveness in Africa.*

¹⁵ Jonathan Di John; *The 'Resource Curse': Theory and Evidence (ARI).*

¹⁶ Risks of gender-based violence and harassment.

¹⁷ Ibid.

Richard Auty, *Sustaining Development in Mineral Economies: The Resource Curse Thesis* (Routledge 1993)

¹⁷ Jeffrey Sachs and Andrew Warner, 'Natural Resource Abundance and Economic Growth' (1995) NBER Working Paper No 5398.

their development plans.¹⁸

Dutch disease: A large increase in natural resource revenues can hurt other sectors of the economy, particularly export-based manufacturing, by causing inflation or exchange rate appreciation and shifting labor and capital from the non-resource sector to the resource sector.¹⁹ This is known as “Dutch disease.” While inflation and exchange rate appreciation can harm large swathes of the economy over within a few years, their impacts can be felt for decades.²⁰ The detrimental effect of natural resources on other industries has been well documented in Iran, Russia, Trinidad and Tobago, and Venezuela, all of which have either stunted manufacturing sectors or saw a precipitous decline in manufacturing.²¹ These impacts can be minimized if the country has the *absorptive capacity* to transform resource revenue inflows into tangible investments, such as roads and electricity; the government uses resource revenues to make investments in the economy that generate non-resource sector growth; or the government places a portion of its resource revenues in foreign assets.²² Over the last 25 years, Chile, Indonesia, Norway and the UAE have largely managed to overcome Dutch disease.²³

Social and environmental problems: The point-source nature of extractive industries often creates challenges when trying to balance the needs of the people and environments that surround the mining area.²⁴ Sharing and compensating for resources such as land, water and the minerals can create conflict between the

¹⁸ The Resource Curse; The Political and Economic Challenges of Natural Resource Wealth.

¹⁹ Emma Gilberthorpe, Elissaia Papyrakis; The extractive industries and development: The resource curse at the micro, meso and macro levels.

²⁰ Ibid.

²¹ The Resource Curse; The Political and Economic Challenges of Natural Resource Wealth.

²² Ibid.

²³ Ibid.

²⁴ Preston S. Chiaro and G. Frank Joklik; National Academies of Sciences, Engineering, and Medicine. 1998. The Ecology of Industry: Sectors and Linkages. Washington, DC: The National Academies Press. <<https://doi.org/10.17226/5793>>

extraction companies and the communities.²⁵ In addition, extraction projects often attract large influxes of people, whether or not additional employment is actually available.²⁶ This can cause stress on economic, social and cultural relations.²⁷ Environmental issues include a host of problems, such as dust from mining, scarring of the landscape, noise from process operation, contamination of hydric sources (from waste rock and tailing disposal), massive use of water in the extractive process, gas flaring (causing health problems and wasteful CO2 emissions) and seismic disturbances.²⁸ In addition, many of the political and economic problems outlined above constitute or can result in the violation of human rights.²⁹ The contract between the government and the extraction company could address these issues and clarify whose responsibility it is to manage these impacts.

Weaker institutional development: Some researchers argue that institutions are weaker in resource-rich countries because it is easy for elites to capture or take large sums of cash.³⁰ The theory suggests that large single-point sources of revenue, such as an oil project, can be managed outside the normal budget process and are relatively easily captured by powerful elites.³¹ Examples of tools used to capture revenues include sovereign wealth funds, national oil companies and contractors for extractive operations.³² As such, elites in natural resource-rich countries are less likely to invest in productive enterprises, such as job-creating manufacturing industries, and instead pursue *rent-seeking*, that is, fight for control of these resources.³³ In some cases, politicians or government officials

²⁵ Jonathan Di John; The 'Resource Curse': Theory and Evidence (ARI).

²⁶ Extractive Industries and Conflict: Toolkit And Guidance For Preventing And Managing

Land And Natural Resources Conflict.

²⁷ Ibid.

²⁸ The Environmental Problems Caused by Mining.

²⁹ Ibid.

³⁰ Ibid.

³¹ World Bank, 'South Sudan Overview' (World Bank 2020).

³² Managing manna from below: sovereign wealth funds and extractive industries in the Pacific.

³³ Jonathan Di John; The 'Resource Curse': Theory and Evidence (ARI).

have also purposefully dismantled societal checks or created new regulations to get access to these resources or to provide access to friends or family, a process nicknamed *rent-seizing*.³⁴ Some argue that the elite focus on rent-seeking and rent-seizing promotes corruption and is damaging to institutional development.³⁵ In turn, the theory suggests that countries with elite rent-seekers and rent-seizers tend to have weaker institutions and lower levels of public service delivery. The data behind this theory is hotly debated, but there are well-documented examples in Afghanistan, Sierra Leone and Tunisia.³⁶

Conflict: Natural resources can, and often do, provoke and sustain internal conflicts as different groups fight for control of the resources or use natural resources to finance their fighting.³⁷ Since 1990, oil-producing countries have been twice as likely to have a civil war compared with non-oil-producing countries.* Political scientists point to examples of the Democratic Republic of the Congo, the Niger Delta, Iraq, Libya and Angola to illustrate this tendency.³⁸ *Petro-aggression*, the tendency of oil rich states to instigate or be targets of international conflict, has been observed in some cases, such as with Iraq's invasion of Iran and Kuwait, but researchers debate whether the data supports the conclusion that resource-rich countries do this at a greater rate than non-resource-rich countries.³⁹

Limited government capture of benefits: In some cases, only a small share of the production value of the resource stays in the country.⁴⁰ One explanation is that many *fiscal regimes*, rules about how to split the profits between companies and

³⁴ Kariuki Muigua; Exploited, Poor and Dehumanised: Overcoming the Resource Curse in Africa.

³⁵ Transparency International, 'Corruption Perceptions Index 2020' (Transparency International 2020).

³⁶ Ibid.

³⁷ The Resource Curse; The Political and Economic Challenges of Natural Resource Wealth.

³⁸ International Crisis Group, 'South Sudan: A Civil War by Any Other Name' (ICG 2014).

³⁹ Ibid.

⁴⁰ The Resource Curse; The Political and Economic Challenges of Natural Resource Wealth.

governments, fail to compensate the state and communities for depleting their resources and related environmental damage or loss of livelihood. These bad deals can happen when countries are so eager to encourage resource extraction that they lower the rates for taxes and royalties without understanding the true value of their resources.⁴¹ In Argentina, Canada, the United States and South Africa, the average effective tax rate (AETR) on many oil projects is less than 50 percent, and in Cameroon, DRC, Peru and the Philippines, the AETR on many mining projects less than 40 percent. In comparison, the AETR on many oil projects in Angola, Libya, Norway and Timor-Leste is more than 70 percent. Also, in capital-intensive (rather than labor-intensive) extractive industries, few non-tax benefits, such as jobs, accrue to locals.⁴² While expectations for *local content*, that is employment, local business development and improved workforce skills, are often very high, the actual number of opportunities may be few.⁴³ The industry has a very low employment rate relative to the size of investments and those jobs, and the machinery required to implement them, mostly imported from abroad, tends to be extremely specialized.⁴⁴

South Sudan's Resource Wealth and Economic Realities Economic Dependence and Vulnerability

South Sudan's economy is heavily dependent on oil, which accounts for nearly all of its exports and a significant portion of its GDP.⁴⁵ This dependence makes the economy extremely vulnerable to global oil price fluctuations.⁴⁶ When oil prices fall, government revenues plummet, leading to budget deficits and cuts in public services.⁴⁷ This volatility creates an unstable economic environment,

⁴¹ United Nations Development Programme, 'Human Development Report 2020: The Next Frontier - Human Development and the Anthropocene' (UNDP 2020)

⁴² Ibid

⁴³ The Resource Curse; The Political and Economic Challenges of Natural Resource Wealth.

⁴⁴ Ibid.

⁴⁵ Oil or Nothing: Dealing with South Sudan's Bleeding Finances.

⁴⁶ IMF, 'South Sudan: 2019 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for South Sudan' (IMF 2019).

⁴⁷ Ibid.

making long-term planning and investment difficult.

Governance and Corruption

The concentration of wealth in the oil sector has fostered corruption and weakened governance.⁴⁸ Transparency International consistently ranks South Sudan among the most corrupt countries in the world.⁴⁹ Corruption manifests in the mismanagement of oil revenues, with funds often diverted from public goods and services to private accounts.⁵⁰ This misallocation of resources exacerbates poverty and inequality, undermining the social contract between the government and its citizens.

Conflict and Human Suffering

The discovery and exploitation of oil in South Sudan have been significant drivers of conflict.⁵¹ Since gaining independence in 2011, the country has been mired in civil war, largely fueled by competition for control over oil resources.⁵² The conflict has led to widespread displacement, loss of life, and destruction of infrastructure. The human toll is immense: families are torn apart, children are deprived of education, and healthcare services are decimated.⁵³

Strategies for South Sudan to navigating the Resource Curse

Despite the challenges, there are pathways to navigate the resource curse and promote sustainable development in South Sudan. These strategies must prioritize the well-being of the South Sudanese people and ensure that resource wealth benefits all citizens.

⁴⁸ Rabah Arezki and Markus Brückner; Oil Rents, Corruption, and State Stability: Evidence from Panel Data Regressions.

⁴⁹ Ibid.

⁵⁰ Transparency International, 'Corruption Perceptions Index 2020' (Transparency International 2020)

⁵¹ Oil or Nothing: Dealing with South Sudan's Bleeding Finances.

⁵² Ibid.

⁵³ Ibid.

1. Diversifying the Economy

Economic diversification is crucial to reduce dependence on oil and stabilize the economy.⁵⁴ Investing in agriculture, a sector with significant potential, can create jobs, improve food security, and generate additional revenue streams.⁵⁵ Programs to support small-scale farmers, like providing access to credit and modern farming techniques, can empower communities and reduce poverty.⁵⁶

2. Strengthening Governance and Institutions

Transparent and accountable management of oil revenues is essential. South Sudan can adopt international best practices such as the Extractive Industries Transparency Initiative (EITI) to ensure that resource wealth is managed for public benefit.⁵⁷ Strengthening institutions, including the judiciary and anti-corruption bodies, can help combat corruption and build trust between the government and its citizens.⁵⁸

3. Investing in Human Capital

Investing in education and healthcare is vital for long-term development. Improving access to quality education can empower the youth, while better healthcare services can enhance productivity and reduce poverty.⁵⁹ Programs focused on vocational training and adult education can also provide skills for alternative livelihoods beyond the oil sector.⁶⁰

4. Promoting Peace and Stability

Peace and stability are prerequisites for development. Addressing the root causes

⁵⁴ Economic Diversification in Developing Countries – Lessons from Country Experiences with Broad-Based and Industrial Policies.

⁵⁵ Ibid.

⁵⁶ United Nations Development Programme, 'Human Development Report 2020: The Next Frontier - Human Development and the Anthropocene' (UNDP 2020)

⁵⁷ How does implementing the Extractive Industries Transparency Initiative (EITI) affect economic growth? Evidence from developing countries.

⁵⁸ Ibid.

⁵⁹ Education Improves Public Health and Promotes Health Equity.

⁶⁰ African Development Bank, 'South Sudan Economic Outlook 2020' (AfDB 2020).

of conflict through inclusive political processes, power-sharing arrangements, and reconciliation efforts is crucial.⁶¹ The international community can support peacebuilding initiatives, provide humanitarian aid, and facilitate dialogue among conflicting parties.⁶²

5. Developing Infrastructure

Investing in infrastructure, such as roads, electricity, and water supply, can facilitate economic diversification and improve the quality of life for citizens.⁶³ Infrastructure development can attract investment, enhance trade, and provide essential services to underserved communities.⁶⁴

Conclusion

The resource curse presents significant challenges for South Sudan, but it also offers opportunities for transformative change. By prioritizing the well-being of its people, adopting transparent and accountable governance practices, diversifying the economy, and investing in human capital and infrastructure, South Sudan can navigate the paradox of plenty and achieve sustainable development. The stories of Maria and James remind us that behind the economic theories and statistics are real people whose lives and futures depend on the choices made today.

⁶¹ Addressing Root Causes of Conflict Vital for Sustaining Peace as COVID-19 Reverses Peacebuilding Gains, Facilitates Intolerance, Speakers Warn Security Council.

⁶² Ibid.

⁶³ How Does New Infrastructure Investment Affect Economic Growth Quality? Empirical Evidence from China.

⁶⁴ Emma Gilberthorpe, Elissaia Papyrakis; The extractive industries and development: The resource curse at the micro, meso and macro levels.

Reference

1. Richard Auty, *Sustaining Development in Mineral Economies: The Resource Curse Thesis* (Routledge 1993).
2. Jeffrey Sachs and Andrew Warner, 'Natural Resource Abundance and Economic Growth' (1995) NBER Working Paper No 5398.
3. IMF, 'South Sudan: 2019 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for South Sudan' (IMF 2019).
4. Transparency International, 'Corruption Perceptions Index 2020' (Transparency International 2020).
5. World Bank, 'South Sudan Overview' (World Bank 2020).
6. United Nations Development Programme, 'Human Development Report 2020: The Next Frontier - Human Development and the Anthropocene' (UNDP 2020).
7. Extractive Industries Transparency Initiative (EITI), 'EITI Standard 2019' (EITI 2019).
8. African Development Bank, 'South Sudan Economic Outlook 2020' (AfDB 2020).
9. International Crisis Group, 'South Sudan: A Civil War by Any Other Name' (ICG 2014).
10. United Nations, 'UN South Sudan Humanitarian Response Plan 2020' (UN 2020).
11. The Political and Economic Challenges of Natural Resource Wealth; The Resource Curse.
12. Emma Gilberthorpe, Elissaia Papyrakis; The extractive industries and development: The resource curse at the micro, meso and macro levels.
13. Jonathan Di John; The 'Resource Curse': Theory and Evidence (ARI).
14. How does implementing the Extractive Industries Transparency Initiative (EITI) affect economic growth? Evidence from developing countries.
15. Economic Diversification in Developing Countries - Lessons from Country Experiences with Broad-Based and Industrial Policies.
16. How does implementing the Extractive Industries Transparency Initiative (EITI) affect economic growth? Evidence from developing countries.

Primary Teacher Education and Kenya's Vision 2030. The Lacuna in the Transformation Agenda

By: Dr. Cherui, Rodgers;* Dr. Simon Kipkenei;** and
Dr. Winnie Waiyaki***

Abstract

The content of basic education in the new curriculum has been designed to equip all learners with relevant knowledge, skills, competencies and values. However, the major challenge facing the education sector concerns the changing of instructional practices towards greater collaborative relationships between teachers and learners. Teaching and learning are what ultimately make a difference in the mind of the learner, and thus affect knowledge, skills, attitudes and the capacity of young people to contribute to contemporary issues. The objective of this paper was to determine the quality of teacher graduate and the capacity to transform the education system given the introduction of competence-based curriculum (CBC) aimed at transforming Kenya towards the attainment of vision 2030. The paper has relied on available secondary data and reviews existing literature on the role of teacher trainer in building capacity for teacher trainee to be able to fit in the ever changing world. The study revealed a worrying fact in that there is an indication that teachers in the field have little knowledge on how the new curriculum will benefit the Kenyan population differently from the previous system hence making them shy away from serious debates concerning the new curriculum. The study concluded that new government educational programs like TUSOME, Kenya Primary Education Development (PRIEDE), Strengthening Mathematics and Science Education (SMASE) among others excluded most teacher trainers and trainees from their implementation leading retraining of teachers who would have been well prepared and informed. This paper recommends that teacher trainers and trainees be involved in every process involving curriculum change. It also recommends that the government incorporate teacher trainers and trainees as the mainstream partners in the implementation of the new curriculum and that training must be done by well-informed trainers.

* Department of Education. Daystar University. Kenya

** Department of Educational Planning and Management; Kibabii University. Kenya

*** Department of clinical Psychology; Daystar University, Kenya

KEY WORDS: Quality, Implementation, Stakeholders, Curriculum, Transformative, skills and primary teacher education.

Introduction

Education forms the basis upon which economic, social and political development of any nation is founded. Investment in education can help to foster economic growth, enhance productivity contribute to national and social development and reduce social inequality (World Bank, 2004). UNESCO (2005) argues that the level of a country's education is one of the key indicators of its level of development. Globally, education is recognized as a basic human right. It has been defined as the process through which knowledge; skills, attitudes and values are imparted for the purpose of integrating the individual into a given society, or changing the values and norms of a society.

Since Independence, the Government of Kenya has recognized the importance of education both as a basic right as well as a tool for achieving social economic development. Education is universally acknowledged as a powerful tool for social, economic, and political transformation. In Kenya, Vision 2030 serves as the country's blueprint for long-term development, with the education sector being a key pillar for achieving its objectives. Central to this vision is the recognition of quality teacher education, particularly at the primary level, as foundational for the success of the broader educational system. Primary Teacher Education (PTE) plays a pivotal role in equipping teachers with the skills and knowledge necessary to nurture young learners who will, in turn, contribute to the nation's development.

Despite Kenya's commitment to Vision 2030, there exists a significant gap, or "lacuna," in the integration of Primary Teacher Education into the broader transformation agenda. This study seeks to explore the disconnect between the goals of Vision 2030 and the current state of PTE, examining the structural, curricular, and policy deficiencies that hinder the sector's ability to contribute effectively to national transformation. By addressing this gap, the study aims to

offer recommendations for aligning PTE with the objectives of Vision 2030, thus ensuring a more cohesive and transformative educational system. Kenya's Vision 2030 is an ambitious plan that seeks to transform the country into a newly industrialized, middle-income nation by the year 2030. The vision is built on three pillars: economic, social, and political governance. Among these, the social pillar places significant emphasis on education, seeing it as a driver of sustainable development and a means of empowering citizens with the skills required to thrive in the modern world (Republic of Kenya, 2007). The provision of quality education, particularly at the primary level, is crucial in this regard, as it forms the foundation for all future learning and development.

Primary Teacher Education, however, has faced numerous challenges over the years, including inadequate funding, outdated curricula, and insufficient teacher training programs (Ngware, 2013). These challenges have led to a mismatch between the skills teachers possess and the demands of modern primary education, which must now align with the broader goals of Vision 2030. Despite efforts by the government and various stakeholders to improve the quality of education in Kenya, the role of PTE in achieving Vision 2030 has not been adequately addressed, leaving a significant gap in the transformation agenda (Owino, 2015). Furthermore, the rapidly evolving educational landscape marked by technological advancements, globalization, and changing societal needs requires that teachers are not only well-trained but also adaptable and innovative. This is particularly true in the context of Kenya's Vision 2030, which envisions a knowledge-based economy driven by skilled human capital (Republic of Kenya, 2007). The current state of PTE, however, does not fully support this vision, as many teacher education programs are still grounded in traditional pedagogical approaches that do not adequately prepare teachers for the dynamic demands of the 21st-century classroom. This study will examine the existing gaps in PTE, particularly in relation to the Vision 2030 objectives, and propose strategies to bridge these gaps. By doing so, it aims to contribute to the ongoing discourse on educational reform in Kenya and the role of teacher education in national development.

Objective of the Paper

The objective of this paper is to determine the quality of teacher graduate and the capacity to transform the education system given the introduction of Competence Based Curriculum (CBC) aimed at transforming Kenya towards the attainment of vision 2030.

Methodology

The paper examined the existing literature, analyzed teacher curriculum, applied focused group discussion with teacher trainers, and utilized personal experience and observations as educators in the development of the research findings.

The findings of the study

Kenya's education system follows a 2-6-3-3 structure: two years of pre-primary education, six years of primary education, three years of junior secondary, and three years of senior secondary education, followed by higher education or vocational training. The aim is to create a highly skilled workforce to drive the socio-economic development outlined in Vision 2030. This education structure plays a pivotal role in preparing learners to meet the demands of an evolving economy that is reliant on knowledge-based industries (Republic of Kenya, 2007). Vision 2030 identifies education as one of the key pillars of national development, emphasizing that an educated workforce is critical for economic growth, innovation, and competitiveness on a global scale. The vision places a particular emphasis on Science, Technology, Engineering, and Mathematics (STEM) subjects, as well as technical and vocational training, recognizing these areas as central to driving Kenya's industrialization goals (Kilonzo, 2017). Despite this ambitious framework, the implementation of Vision 2030 within the Kenyan education system has been met with several challenges. The focus on academic achievement, for instance, has overshadowed essential skills such as critical thinking, creativity, and problem-solving, which are critical for the 21st-century job market. As Kenya strives to become a middle-income nation, these gaps in education hinder progress toward achieving the goals of Vision 2030, especially in primary education, which serves as the foundation for the entire system.

Primary Teacher Education (PTE) is critical in achieving the educational goals of Vision 2030, as primary school teachers are responsible for laying the academic foundation for future learning. However, one of the major findings of this study is that PTE in Kenya remains significantly underdeveloped in terms of quality and alignment with Vision 2030's objectives. The traditional pedagogical approaches employed in many teacher training programs do not equip teachers with the skills necessary to foster the kinds of competencies and mindsets required for national transformation (Ngware, 2013). The curriculum for PTE has not evolved to keep pace with changes in the national development agenda. For example, there is insufficient emphasis on integrating technology into the classroom or developing critical and creative thinking skills in young learners. These gaps mean that teachers are not well-prepared to nurture students in a way that supports the human capital development envisaged in Vision 2030 (Owino, 2015). Moreover, the lack of continuous professional development opportunities for teachers further exacerbates the problem, leaving many educators stuck with outdated teaching methodologies.

Teacher training institutions also face challenges related to infrastructure, resources, and capacity. Many institutions lack the necessary teaching materials and modern technologies to offer practical, hands-on training for future teachers. This inadequacy translates into a workforce of teachers who are not fully equipped to deal with the diverse learning needs of students or the rapidly changing demands of the global economy, thus impeding Kenya's progress toward its Vision 2030 goals (Kafu, 2011). One of the core pillars of Vision 2030 is to improve the quality and accessibility of education at all levels. However, this study finds that there are significant disparities in educational quality across the country, particularly between rural and urban areas. While some progress has been made in increasing enrollment rates in primary schools, the quality of education remains a critical concern. Teachers in rural areas often work under more challenging conditions, with fewer resources and larger class sizes, compared to their counterparts in urban areas. These disparities have led to inequities in educational outcomes, which undermine the Vision 2030 goal of

producing a globally competitive workforce (MoEST, 2014). In addition to the geographical disparities, gender inequities in education continue to persist, especially in rural and marginalized communities. Despite national efforts to promote gender equality in education, cultural and socio-economic factors still impede girls' access to quality education, particularly at the primary level. Since Vision 2030 aims to ensure that all citizens have equal opportunities to contribute to national development, addressing these disparities is crucial for the realization of the vision (UNESCO, 2015).

Kenya has introduced various curriculum reforms in response to Vision 2030, most notably the Competency-Based Curriculum (CBC), which was launched in 2017. The CBC is designed to foster skills such as problem-solving, creativity, communication, and digital literacy – skills that are aligned with the demands of the 21st century and the goals of Vision 2030 (KICD, 2017). However, findings indicate that the implementation of the CBC faces significant challenges, particularly in the context of teacher preparedness. Many teachers lack the necessary training and resources to effectively implement the new curriculum, resulting in inconsistencies in its application across schools. Moreover, there is a gap between the curriculum reforms and the teacher training programs. While the CBC emphasizes student-centered learning and the development of competencies, most PTE programs are still based on traditional teacher-centered approaches. This disconnect hampers the ability of teachers to fully embrace and implement the curriculum in a way that aligns with Vision 2030's objectives (Republic of Kenya, 2017).

A key finding of this study is that there are gaps in policy coordination between the various educational stakeholders, which have hindered the full integration of Vision 2030 into the education sector. While Vision 2030 outlines clear goals for education, there is often a lack of coherence between national policies, teacher education programs, and school-level practices. The Ministry of Education, teacher training institutions, and schools need to work in a more coordinated manner to ensure that the goals of Vision 2030 are reflected in classroom teaching

and learning practices (Wanjohi, 2011). Furthermore, the allocation of resources has been uneven, with more attention given to secondary and higher education at the expense of primary education and PTE. This imbalance has contributed to the challenges facing primary education and teacher training, further widening the gap between the current state of the education system and the aspirations of Vision 2030 (MoEST, 2014).

The Teacher Trainer-Trainee and the Implantation of Competence Based Curriculum

Kenya's Competency-Based Curriculum (CBC) was introduced in 2017 as a major educational reform aimed at addressing the gaps in the traditional content-based 8-4-4 system. The CBC shifts the focus from the mere acquisition of knowledge to the development of competencies, including critical thinking, problem-solving, creativity, and innovation, which are essential for the 21st-century learner (Republic of Kenya, 2017). The curriculum is designed to nurture students' abilities from early education, emphasizing practical skills, values, and the application of knowledge in real-life situations. This reform aligns closely with Kenya's Vision 2030, which seeks to create a knowledge-based economy driven by skilled and adaptable human capital.

However, the successful implementation of the CBC hinges largely on the effectiveness of teacher training, especially at the primary level. Primary Teacher Education (PTE) plays a critical role in equipping teacher trainees with the knowledge, skills, and attitudes necessary for implementing the new curriculum. The relationship between teacher trainers (instructors at teacher training colleges) and teacher trainees is, therefore, pivotal in ensuring that CBC objectives are met in the classroom. This study examines the preparedness of both teacher trainers and trainees in relation to the CBC and identifies the key challenges that are impeding the effective implementation of this curriculum.

One of the key findings of this study was that teacher trainers, the individuals responsible for preparing future primary school teachers, are not adequately

equipped to deliver the competencies required for CBC implementation. Many teacher trainers themselves were educated and trained under the old 8-4-4 system, which focused on content delivery rather than competency development (Kafu, 2011). As a result, a significant number of these trainers have limited experience with the pedagogical approaches central to the CBC, such as learner-centered methods, inquiry-based learning, and the integration of digital tools.

Moreover, while some in-service training programs have been initiated to reorient teacher trainers to the CBC, the coverage and depth of these programs have been insufficient. Many trainers have reported that they lack the necessary resources and continuous professional development opportunities to fully understand and teach the competencies outlined in the new curriculum (Oduor, 2019). This creates a disconnect between what is expected of teacher trainees and what teacher trainers are able to deliver. In addition, there is a lack of standardization in the professional development offered to teacher trainers, resulting in uneven levels of preparedness across the country. Trainers in rural and under-resourced teacher training colleges are particularly disadvantaged, as they have limited access to CBC-related training materials and digital resources, which further hampers their ability to train future teachers effectively (Owino, 2015). Teacher trainees, the future primary school teachers tasked with implementing the CBC, face significant challenges in their training and preparation. This study reveals that many teacher trainees enter their training programs with little to no prior exposure to competency-based approaches, having themselves been educated under the content-focused 8-4-4 system. As a result, adapting to the CBC's learner-centered approach requires a complete shift in mindset, which is not adequately facilitated by the current PTE curriculum (Ngware, 2013). A major challenge is the lack of alignment between the curriculum used in teacher training colleges and the expectations of the CBC. While the CBC emphasizes practical application, creativity, and critical thinking, many teacher training programs remain rooted in traditional teaching methods that focus on rote learning and the memorization of content. This mismatch means that teacher trainees are not fully prepared to apply CBC methodologies

in the classroom (Republic of Kenya, 2017). Without significant curriculum reforms in PTE, teacher trainees will continue to face difficulties in implementing CBC principles once they enter the teaching profession.

Another challenge identified in this study is the limited access to teaching and learning resources that support CBC implementation. Teacher trainees require access to modern educational technologies, instructional materials, and practical experiences that will enable them to develop the competencies necessary for the CBC. However, many teacher training colleges, particularly those in rural areas, lack the infrastructure and resources to provide such training. This leaves teacher trainees ill-equipped to utilize the digital tools and learner-centered approaches that are essential for CBC implementation (Oduor, 2019). The relationship between teacher trainers and trainees is critical for the successful implementation of the CBC. However, this study finds that there are significant gaps in the mentorship and support provided to teacher trainees. In many teacher training colleges, large class sizes and inadequate staffing levels make it difficult for trainers to provide individualized attention and mentorship to each trainee. This limits the opportunities for teacher trainees to receive personalized guidance on how to apply CBC principles in practical teaching situations (Kafu, 2011). Furthermore, the study reveals that many teacher trainees do not receive adequate practical teaching experience during their training. While the CBC emphasizes hands-on learning and real-world application, teacher trainees often have limited opportunities to practice these approaches in actual classroom settings before they graduate. This lack of practical experience means that trainees enter the workforce with insufficient confidence and competence in implementing the CBC, which affects their ability to deliver quality education aligned with Vision 2030 (Owino, 2015). To address these issues, it is essential to foster stronger relationships between teacher trainers and trainees through more structured mentorship programs. Teacher training colleges should also increase opportunities for trainees to engage in practical teaching experiences, including internships, teaching practicums, and peer-teaching exercises that align with CBC objectives.

The implementation of the CBC requires strong policy and institutional support, particularly in the realm of teacher education. However, this study finds that there are gaps in policy coordination between the Ministry of Education, teacher training institutions, and schools, which impede the successful training of teachers for CBC implementation (Wanjohi, 2011). There is often a lack of clear communication and support structures to ensure that teacher training colleges are adequately resourced and informed about the latest developments in CBC implementation. Moreover, while the government has made efforts to train existing teachers on CBC principles, these training programs are often short-term and do not provide the sustained support needed for effective implementation. Teacher training colleges also require more investment in infrastructure, digital tools, and modern teaching resources that align with CBC goals. Without such institutional support, both teacher trainers and trainees will continue to struggle in implementing the CBC, hindering the progress toward achieving Vision 2030 (MoEST, 2014).

Competency Based Curriculum Stakeholders' Participation and Expectations

The Presidential Working Party on Education Reforms (PWPER) has proposed sweeping changes in teacher education, including the merger of Diploma in Primary Teacher Education and Diploma in Early Childhood Teacher Education into a new Diploma in Teacher Education. This is designed to enhance the quality of teacher training and ensure that graduates can effectively teach across multiple levels, from pre-primary to grade six. Despite the ambitious reforms, significant gaps remain in their actual implementation. There is a lack of standardized frameworks for teacher training, which complicates the assessment and improvement of teaching practices across institutions. Many colleges still employ varied approaches to micro-teaching and practicum assessments, making it difficult to ensure consistent quality in teacher education.

The integration of inclusive education policies, as outlined in various government strategies, remains a priority. The Basic Education Act of 2013 mandates inclusive education, but the practical realization of this goal is uneven.

Training programs are being developed to equip teachers with skills to address diverse learning needs, but the effectiveness of these initiatives varies. The COVID-19 pandemic has exacerbated existing educational inequalities, slowing down the progress of reforms aimed at improving learning outcomes. The government acknowledges that the current system must adapt to address not only educational access but also the quality of education delivered. The Kenyan government has significantly increased its budget allocation for education, reflecting a commitment to improving educational infrastructure and resources. This includes funding for teacher training programs and ensuring that educational materials are accessible to all students. While there are frameworks and initiatives in place aiming at transforming primary teacher education in line with Kenya's Vision 2030, the actualization of these reforms faces challenges that need addressing, including standardization of training, inclusivity, and effective implementation of strategies.

Conclusion

The findings of this study highlight several critical issues that are impeding the effective implementation of the Competency-Based Curriculum in Kenya. Teacher trainers are not adequately prepared to teach CBC principles due to their own education backgrounds and limited access to professional development. Teacher trainees, meanwhile, face challenges in adapting to the CBC due to outdated training curricula, limited access to resources, and insufficient practical teaching experience. Additionally, gaps in mentorship and institutional support further hinder the ability of teacher trainers and trainees to fulfill the objectives of the CBC. To bridge these gaps, it is essential to reform teacher education curricula to align with CBC goals, provide continuous professional development for teacher trainers, and increase institutional support for teacher training colleges. Strengthening the relationship between teacher trainers and trainees through mentorship and practical teaching experiences is also critical. By addressing these challenges, Kenya can better equip its future primary school teachers to implement the CBC and contribute to the realization of Vision 2030. The findings of this study also revealed significant gaps between the current state

of Kenya's primary education system and the objectives outlined in Vision 2030. Primary Teacher Education is crucial for national transformation, but its outdated curriculum, lack of resources, and insufficient alignment with national goals present a serious lacuna in the transformation agenda. Addressing these challenges requires comprehensive reforms in teacher training, curriculum development, and resource allocation, as well as stronger policy coordination among stakeholders. Only by bridging these gaps can Kenya realize the full potential of Vision 2030 and ensure that its education system is capable of driving sustainable national development.

Recommendations

1. Strengthen Continuous Professional Development (CPD) for Teacher Trainers: To ensure that teacher trainers are fully equipped to prepare future teachers for Competency-Based Curriculum (CBC) implementation, the government and educational institutions must prioritize continuous professional development. CPD programs should focus on equipping trainers with the latest pedagogical approaches, particularly those that align with CBC principles such as learner-centered instruction, competency-based assessments, and the integration of technology. These programs should be regular, comprehensive, and tailored to address the specific needs of trainers in both urban and rural teacher training colleges.
2. Revise the Primary Teacher Education Curriculum to Align with CBC: The current curriculum used in teacher training colleges needs to be revised to fully align with the CBC. This revision should emphasize competency-based teaching methods, the development of critical thinking skills, and the practical application of knowledge. Teacher trainees should be exposed to modern instructional strategies that foster creativity, collaboration, and real-world problem-solving.
3. Strengthen Policy Coordination and Resource Allocation: Effective coordination between the Ministry of Education, teacher training institutions, and schools is essential for aligning the education system with Vision 2030. The government should establish a dedicated task force to ensure that PTE policies are clearly articulated and consistently implemented across the board. This task

*Primary Teacher Education and Kenya's Vision 2030.
The Lacuna in the Transformation Agenda:
Dr. Cherui, Rodgers, Dr. Simon Kipkenei &
Dr. Winnie Waiyaki*

(2024) Journalofcmsd Volume 11(5)

force should oversee the alignment of teacher education programs with national development goals and regularly assess the progress of curriculum reforms.

References

- Kafu, P. A. (2011). Teacher education in Kenya: Emerging issues. *International Journal of Curriculum and Instruction*, 1(1), 43-53.
- Kenya Institute of Curriculum Development (KICD). (2017). *Curriculum reforms in Kenya: The competency-based curriculum*. KICD.
- Kilonzo, S. (2017). Education reforms and Vision 2030 in Kenya. *Journal of Education and Practice*, 8(29), 63-70.
- Ministry of Education, Science, and Technology (MoEST). (2014). *Basic education statistical booklet 2014*. MoEST.
- Ngware, M. (2013). *Quality of teaching and learning in primary schools: The Kenyan experience*. African Population and Health Research Center.
- Oduor, A. (2019). *Teacher preparedness in CBC implementation: A critical analysis*. The Standard Newspaper.
- Owino, W. (2015). Challenges facing primary teacher education in Kenya. *International Journal of Education and Research*, 3(2), 55-63.
- Republic of Kenya. (2017). *Basic education curriculum framework*. Government of Kenya.
- Republic of Kenya. (2007). *Kenya Vision 2030: The popular version*. Nairobi: Government of Kenya.
- UNESCO. (2015). *Gender disparities in education: The challenge for Kenya*. UNESCO.
- Wanjohi, A. (2011). *Challenges facing curriculum implementation in Kenya*. KENPRO.

Mitigating the Environmental Impact of Oil: Strategies for Sustainable Development

By: Paul Dhel Gum*

Abstract

The extraction and use of oil in South Sudan have significant environmental, economic, and health implications, necessitating strategies for mitigating its impact on sustainable development. This study aims to identify and evaluate measures to minimize the environmental impact of oil extraction and use in South Sudan. The research addresses the direct and indirect costs associated with oil extraction and use by local industries and communities, assessing the economic burdens imposed by environmental degradation and health hazards. Additionally, it investigates the health effects of oil pollution on human populations, considering respiratory illnesses, skin disorders, and reproductive problems prevalent in affected communities. Furthermore, the study evaluates the ecological consequences of oil spills and pollution on terrestrial and aquatic ecosystems, examining habitat destruction, biodiversity loss, and water contamination. Previous studies have highlighted the adverse effects of oil extraction and pollution on the environment, human health, and economic development. However, controversies and gaps persist regarding the effectiveness of mitigation measures and the long-term impacts of oil pollution. This research aims to provide insights into effective strategies for minimizing the environmental impact of oil in South Sudan, ultimately contributing to sustainable development and the well-being of local communities.

Keywords: Oil extraction, environmental impact, sustainable development, mitigation strategies, economic costs, health effects, ecological consequences.

Background

Oil extraction, despite its economic benefits, caused significant environmental degradation in South Sudan (Saturlino, 2023). The environmental toll from oil production manifested in various ways, including land degradation, water

* LLB University of Nairobi Juba/ South Sudan
Tel: +211912376762

contamination, and air pollution, which posed severe threats to human health and the ecosystem (Mudumba et al.,

2023). Oil spills and pipeline leaks were common occurrences in South Sudan, exacerbating the environmental situation (Lydon et al., 2020). The region witnessed an alarming rise in environmental accidents, making the effects of oil extraction a critical issue that required attention (Gathuoy, 2022). Moreover, the environmental hazards compounded the country's pre-existing socio-political challenges, including conflicts over resource management (Adeola et al., 2021).

Despite efforts to regulate the industry, South Sudan's government had weak institutional capacity and limited enforcement of environmental laws, which worsened the situation (Ologunde et al., 2020). This research focused on the environmental risks associated with oil extraction in South Sudan, aiming to propose sustainable solutions to minimize these hazards while ensuring the country's economic growth.

Environmental degradation in oil-producing regions had been a global concern, with extensive studies conducted across countries such as Nigeria, Angola, and Ecuador. Research from Nigeria, Africa's largest oil producer (Arias and Colmenarez, 2024), showed similar environmental challenges to those faced by South Sudan (Saturlino, 2023). Studies indicated that oil production in Nigeria led to significant soil and water contamination due to pipeline leaks and gas flaring (Okonkwo et al., 2021). Moreover, economic dependence on oil in Nigeria often led to environmental neglect, particularly in regions like the Niger Delta (Sojini & Ejeromedoghene, 2019). In South Sudan, the reliance on oil production mirrored these challenges, with communities near extraction sites facing adverse health effects due to water contamination and air pollution (Adeola et al., 2021).

In Angola, research revealed that oil extraction caused extensive environmental damage, contributing to deforestation, land degradation, and

water pollution (Leite et al., 2023). Similar to South Sudan, Angola's oil industry was vital to its economy, but environmental management lagged behind economic expansion, leading to deteriorating conditions in oil-rich regions (Kanu et al., 2020). Literature on Angola's environmental impact indicated that oil spills and pipeline ruptures posed long-term ecological risks, with little success in mitigating these hazards.

In Ecuador, research focused on the environmental impact of oil extraction in rainforests, specifically in the Amazon region. The region suffered from oil contamination, and research by Morales et al. (2022) showed how extraction activities affected biodiversity, water quality, and indigenous communities. South Sudan, although geographically and ecologically different, faced similar threats to its water resources, particularly the Sudd wetland, which was at risk from oil contamination due to improper waste disposal (Mudumba et al., 2023).

These studies highlighted the global issue of environmental degradation linked to oil extraction and the lack of proper environmental governance in resource-rich developing nations. The research problem in South Sudan was particularly significant because of the country's fragile socio-political climate, which exacerbated the environmental and public health crises (Lydon et al., 2020). Despite this body of literature, few studies focused specifically on South Sudan's oil sector and the intersection between environmental degradation, local community health, and policy failures. Thus, this study aimed to fill this gap by providing an in-depth analysis of these issues in South Sudan's context.

The research was guided by the Environmental Kuznets Curve (EKC) theory, which hypothesized an inverted U-shaped relationship between environmental degradation and economic development. According to the EKC theory, as a country's economy grows, environmental degradation initially worsens, but at a certain point of development, it begins to improve as the country invests in cleaner technologies and enforces stronger environmental regulations (Panayotou, 2020). In South Sudan's case, the

country was still at the stage where economic activities, particularly oil extraction, contributed significantly to environmental degradation (Kanu et al., 2020).

However, the EKC theory suggested that there was potential for environmental recovery as the country matured economically and politically, provided that appropriate environmental policies were implemented (Morales et al., 2022). This theoretical framework helped in understanding the interplay between South Sudan's economic development and its environmental management. Additionally, the Resource Curse theory, which posited that resource-rich countries often experienced slower economic growth and poor development outcomes due to mismanagement of resources, was applied to explain South Sudan's dependency on oil and its associated environmental and socio-political challenges (Leite et al., 2023).

The main objective of this research was to assess the environmental risks associated with oil extraction in South Sudan and propose sustainable solutions to mitigate these risks. Specifically, the study aimed to:

- i. Analyze the extent of environmental degradation caused by oil extraction in South Sudan.
- ii. Identify the major environmental hazards, including oil spills, gas flaring, and water contamination.
- iii. Assess the health impact of oil-related pollution on local communities.
- iv. Propose policy interventions and best practices for sustainable oil extraction in South Sudan.

The significance of this study lay in its potential to contribute to both academic and practical fields. Academically, it filled a crucial gap in the literature on environmental degradation in South Sudan's oil sector, a relatively under-researched area (Mudumba et al., 2023). The findings provided insights into how oil-rich developing nations could balance economic growth with

environmental sustainability.

In practical terms, the study's outcomes were significant for policymakers in South Sudan and similar countries. By identifying the most pressing environmental hazards and offering policy recommendations, this research could guide the development of more stringent environmental regulations and enforcement mechanisms (Sojinu & Ejeromedoghene, 2019). Furthermore, the research was valuable to environmental advocacy groups and international development organizations working to promote sustainable development in resource-rich nations (Leite et al., 2023).

Materials and Methods

This study employed a structured approach to examining the environmental impacts of oil extraction in South Sudan, focusing on a synthesis of existing studies. The primary objective was to gain insights into the economic, health, and ecological consequences of oil extraction in the region by analyzing secondary data from peer-reviewed research. Given the limited availability of direct primary data from South Sudan due to the ongoing conflict and governance challenges, the study relied on a comprehensive review of literature published between 2020 and 2024 to provide a robust understanding of the topic.

Data Collection

To ensure a thorough analysis, the study primarily relied on secondary data from academic journals, government reports, and independent environmental studies. The peer-reviewed articles were sourced from scholarly databases such as Science Direct, JSTOR, and Google Scholar. These databases were chosen for their comprehensive access to high-quality, up-to-date, and peer-reviewed materials relevant to the environmental consequences of oil extraction. Limiting the search to sources published between 2020 and 2024 ensured that the research reflected the most recent developments and trends in this field.

The data collection process involved a systematic search strategy, with specific keywords and phrases used to identify relevant literature. Keywords such as "oil extraction," "environmental impact," "South Sudan," "economic costs," "health effects," and "ecological consequences" were used in various combinations with Boolean operators to narrow the search results to the most relevant studies. This ensured that the study focused exclusively on environmental impacts related to oil extraction in South Sudan and excluded irrelevant or outdated research.

Screening and Inclusion Criteria

After retrieving relevant articles, a detailed screening process was employed to assess the relevance of each study. Predefined inclusion and exclusion criteria were applied to ensure that only studies directly relevant to the research objectives were included. To maintain the academic rigor of the study, only peer-reviewed articles, government reports, and reputable environmental studies were considered. Furthermore, the research only included studies published in English to avoid translation errors and misunderstandings.

The inclusion criteria also focused on studies addressing environmental degradation, economic costs, health effects, and ecological consequences directly linked to oil extraction. Any articles that focused solely on economic analysis without discussing environmental consequences were excluded from the study. Additionally, sources lacking empirical evidence were also excluded to maintain the reliability of the findings.

Data Analysis

The data collected from the literature review were critically analyzed, with a focus on three key areas: economic costs, health effects, and ecological consequences of oil extraction in South Sudan. Each thematic area was explored through the lens of existing studies to provide a comprehensive understanding of the subject.

Economic Costs

In terms of economic costs, the study analyzed research examining the financial burdens borne by local communities due to environmental degradation caused by oil exploration and production. Several studies found that oil spills and leaks contaminated farmlands and water sources, reducing agricultural productivity and affecting food security. For instance, a study by Kanu et al. (2022) documented how oil spills significantly reduced agricultural yields in rural South Sudanese communities, leading to severe economic losses for those dependent on farming. The contamination of soil and water sources not only affected food production but also limited access to clean water, further increasing the economic burden on local populations.

Health Effects

The review also focused on the health effects of oil extraction, particularly the consequences of exposure to hazardous chemicals and pollution for populations residing near oilfields. The research identified several health issues linked to oil extraction activities, including respiratory illnesses, skin disorders, and reproductive health problems. Adeola et al. (2021) provided valuable insights into the health effects of oil pollution, documenting a rise in respiratory diseases among people living near oilfields due to prolonged exposure to gas flaring and oil byproducts. Similarly, Okonkwo et al. (2021) explored the reproductive health impacts of oil pollution, noting increased cases of birth defects and reproductive health disorders in oil-producing regions, which mirrored findings from similar studies conducted in other oil-producing countries.

Ecological Consequences

Ecological impacts were a central theme in this research, with studies evaluating the effects of oil spills and pollution on South Sudan's terrestrial and aquatic ecosystems. The analysis included research on biodiversity loss, habitat destruction, and water contamination. Mudumba et al. (2023) examined the impact of oil spills on South Sudan's Sudd wetland, one of the largest wetland ecosystems in Africa. The study found that oil pollution

severely affected water quality and led to the destruction of aquatic habitats, threatening the biodiversity and livelihoods of local communities.

Additionally, long-term habitat fragmentation caused by oil infrastructure, such as pipelines, led to further ecological degradation, with significant consequences for wildlife populations.

Ethical Considerations

Although this study relied exclusively on secondary data, ethical considerations were adhered to throughout the research process. All sources used in the study were properly cited in accordance with APA style to ensure that original authors received due credit for their work. Furthermore, the research aimed to present findings objectively, without bias or misinterpretation, ensuring that the data was accurately reported and supported by credible sources.

Limitations

One of the limitations of the study was the reliance on secondary data, which restricted the ability to gather firsthand information on the environmental impacts of oil extraction in South Sudan. Due to ongoing conflict and governance issues in the region, accessing primary data through field studies was not feasible. As a result, the study had to rely on available research, which may not fully capture the most recent or localized environmental changes in South Sudan. However, the use of peer-reviewed articles published between 2020 and 2024 ensured that the study included the latest available information.

Results and Findings

Table 1: Economic Costs of Oil Extraction on Local Communities

Study	Country	Economic Impact	Affected Sectors	Economic Loss (in USD)	Source
Abegunde et al. (2023)	Nigeria	Decline in agricultural productivity due to oil spills and air pollution	Agriculture, Food Security	\$500 million	Abegunde et al. (2023)
Mudafar et al. (2022)	Chad	Disruption of traditional fishing practices and access to water resources	Fishing, Agriculture	\$300 million	Mudafar et al. (2022)
Akpom et al. (2021)	Nigeria	Strain on local economies due to limited access to clean water and displacement from fishing areas	Fishing, Water Resources	\$200 million	Akpom et al. (2021)
Babu et al. (2023)	Nigeria	Increased financial burden on communities due to environmental cleanup and remediation	Agriculture, Community Welfare	\$250 million	Babu et al. (2023)

The results show significant economic losses across multiple sectors such as

agriculture and fishing, largely due to environmental degradation caused by oil extraction. The economic impacts are magnified by the disproportionate financial burden borne by local communities, as reflected in the need for remediation efforts in countries like Nigeria and Chad. The disruption of fishing and agricultural practices further exacerbates economic hardship, contributing to regional instability and food insecurity.

Table 2: Health Effects of Oil Extraction on Human Populations

Study	Country	Health Impact	Affected Population	Prevalence Rate (%)	Source
Okonjo et al. (2022)	Nigeria	Respiratory illnesses like asthma and COPD due to exposure to oil pollutants	Communities living near oilfields	65%	Okonjo et al. (2022)
Afolabi et al. (2023)	Ghana	Increased risk of cancers, particularly lung cancer, due to long-term exposure to oil extraction byproducts	Communities living near oil installations	48%	Afolabi et al. (2023)
Talabi & Kayode (2020)	Nigeria	Skin irritations and eye problems caused by direct contact with contaminated water and air	Local residents near oil spills	55%	Talabi & Kayode (2020)
Afeisume et al. (2021)	Ghana	Women and children face heightened health risks, including reproductive problems	Women and children in oil-producing regions	40%	Afeisume et al. (2021)

The studies indicate that oil extraction has severe health consequences for populations residing near oilfields. Respiratory illnesses are the most prevalent, with over 65% of the population in some areas suffering from conditions such as asthma and COPD. Long-term exposure has also been

linked to cancer, particularly lung cancer, affecting nearly half of the population in some regions. Vulnerable groups, especially women and children, experience elevated health risks, including reproductive issues, adding an additional layer of socio-economic burden to these communities.

Table 3: Ecological Consequences of Oil Extraction

Study	Country	Ecological Impact	Affected Ecosystem	Biodiversity Loss (%)	Source
Ojo et al. (2023)	Nigeria	Destruction of mangrove forests and wetlands due to oil spills	Wetlands, Mangrove Forests	30%	Ojo et al. (2023)
Alemie & Alemu (2020)	Ethiopia	Long-term pollution affecting aquatic ecosystems, leading to fish population decline and water contamination	River Ecosystems, Lakes	25%	Alemie & Alemu (2020)
Fagbemi et al. (2021)	Nigeria	Disruption of food chains and destruction of habitats critical to endangered species	Forests, Wetlands	20%	Fagbemi et al. (2021)
Okonjo et al. (2022)	Nigeria	Irreversible damage to biodiversity and ecosystem services due to prolonged oil pollution	Forests, Wetlands	35%	Okonjo et al. (2022)

Ecological damage caused by oil extraction activities is profound and often irreversible. Wetland ecosystems and mangrove forests, which play a crucial

role in biodiversity, have seen a biodiversity loss rate as high as 35% due to oil spills and pollution. Aquatic life has been severely affected by long-term contamination of waterbodies, which has disrupted local food chains and led to the decline of fish populations. Such ecological degradation also undermines the livelihoods of local communities dependent on these ecosystems, further amplifying the socio-economic impact of oil extraction.

Table 4: Mitigation Strategies for Addressing Environmental Impacts of Oil Extraction

Study	Country	Mitigation Strategy	Objective	Effectiveness (Rating out of 5)	Source
Adeola et al. (2021)	Nigeria	Environmental regulations to prevent oil spills and minimize pollution	Reduce oil spills and pollution	4.5	Adeola et al. (2021)
Afolabi et al. (2023)	Ghana	Adoption of cleaner technologies to reduce environmental footprint of oil extraction	Reduce environmental degradation	4	Afolabi et al. (2023)
Akpom et al. (2021)	Nigeria	Community engagement in decision-making and environmental monitoring	Foster trust and cooperation	3.8	Akpom et al. (2021)
Babu et al. (2023)	Nigeria	Development of comprehensive oil spill response plans	Minimize impact of accidental oil spills	4.2	Babu et al. (2023)

		Promotion of sustainable development practices,		
Fagbemi et al. (2021)	Nigeria	including investment in renewable energy	Reduce reliance on oil extraction	4.7
				Fagbemi et al. (2021)

The mitigation strategies identified in this research have varying degrees of effectiveness. Environmental regulations and enforcement mechanisms have been rated highly effective in reducing oil spills and pollution, particularly in countries like Nigeria, where regulation has begun to curtail environmental degradation. Cleaner technologies, such as advanced oil recovery methods, have shown moderate effectiveness but require significant investment and technological capacity. Community engagement and sustainable development practices, including investment in renewable energy, offer long-term solutions to reduce dependence on oil extraction and mitigate environmental impact. Comprehensive oil spill response plans have also demonstrated significant potential in minimizing accidental spill damage.

Discussion

Economic Costs of Oil Extraction

The economic costs of oil extraction in South Sudan are evident in the disruptions caused to local livelihoods, especially in agricultural and fishing communities. Studies have shown that oil spills and pollution lead to a significant decline in agricultural productivity, directly affecting food security and local economies. Research by Abegunde et al. (2023) in Nigeria found that crop yields dropped by 40% in areas affected by oil spills, a phenomenon likely replicated in South Sudan due to similar environmental conditions. Oil extraction also interferes with traditional fishing practices, as water bodies are often contaminated, reducing fish populations and depriving communities of a primary source of food and income (Akpom et al., 2021). These economic impacts highlight the dual burden of oil extraction: while it brings national

revenue, it disproportionately affects local economies through loss of livelihoods, increased poverty, and dependency on external aid.

The financial burden of environmental remediation and cleanup often falls on local communities, exacerbating existing economic hardships. Babu et al. (2023) found that in Chad, the cost of environmental cleanup after oil spills was transferred to local communities, with minimal assistance from oil companies. This mirrors the situation in South Sudan, where oil extraction has placed an economic strain on those least equipped to handle it. Moreover, compensation schemes for affected communities are often inadequate, leading to prolonged economic distress (Mudafar et al., 2022). This trend suggests a failure of the oil industry to account for the long-term economic effects on local communities, leading to social and economic discontent.

Health Effects of Oil Pollution

The health impacts of oil extraction are severe, particularly for communities residing near oil fields. The presence of pollutants such as volatile organic compounds (VOCs), heavy metals, and hydrocarbons poses significant health risks. Research by Okonjo et al. (2022) in Nigeria demonstrates a direct link between oil pollution and respiratory illnesses, with communities near oilfields experiencing a 25% higher prevalence of asthma and chronic obstructive pulmonary disease (COPD). In South Sudan, similar health outcomes are likely, with high levels of air pollution contributing to an increase in respiratory problems, particularly among vulnerable populations such as women and children (Afolabi et al., 2023).

Moreover, oil pollutants can lead to other health issues, including skin irritation, eye problems, and an increased risk of cancer. A study by Talabi and Kayode (2020) in Ghana found that communities exposed to oil spills and flares reported a 15% higher incidence of skin diseases compared to unexposed areas. In South Sudan, where healthcare infrastructure is underdeveloped, these health effects are more pronounced, with limited access to medical care exacerbating the problem. The long-term health effects

are particularly concerning, as exposure to carcinogenic compounds may increase the risk of cancers over time (Afeisume et al., 2021). These findings suggest a pressing need for improved health interventions and stricter regulations to reduce the exposure of communities to harmful pollutants.

Ecological Consequences of Oil Extraction

Oil extraction has devastating ecological consequences, particularly on South Sudan's terrestrial and aquatic ecosystems. Oil spills not only degrade land and water but also have far-reaching impacts on biodiversity. Ojo et al. (2023) highlight how oil spills in Nigeria have led to the destruction of mangrove forests and wetlands, which are critical habitats for various species. In South Sudan, the situation is no different, as oil exploration activities destroy vital ecosystems that support both human and animal life. Aquatic ecosystems are especially vulnerable, with oil spills contaminating water sources and disrupting food chains (Fagbemi et al., 2021). The contamination of water bodies in South Sudan is particularly concerning, as it not only affects aquatic life but also compromises the water supply for human consumption and agriculture.

Moreover, the long-term impacts of oil extraction on ecosystems are difficult to assess but could be irreversible. Studies indicate that oil spills lead to a significant reduction in biodiversity, with species unable to recover due to the persistence of oil pollutants in the environment (Alemie & Alemu, 2020). In Ethiopia, similar oil-related ecological damage has resulted in a 30% reduction in the population of certain fish species (Fagbemi et al., 2021). This highlights the need for comprehensive environmental protection measures to prevent further ecological damage in South Sudan. Without immediate action, the loss of biodiversity and ecosystem services could become permanent, leading to ecological imbalances and further economic hardships for local communities.

Mitigation Strategies

Various mitigation strategies have been proposed to address the environmental impacts of oil extraction in South Sudan, many of which have

been successfully implemented in other oil-producing countries. One of the most important strategies is the enforcement of strict environmental regulations. Adeola et al. (2021) highlight how Nigeria implemented more stringent environmental laws following widespread oil spills, which significantly reduced the number of incidents. In South Sudan, the lack of robust environmental regulations has allowed oil companies to operate with little accountability. Introducing similar regulatory frameworks could help mitigate the environmental damage caused by oil extraction.

Another effective mitigation strategy is the adoption of cleaner technologies, such as advanced oil recovery techniques and pollution control equipment. Afolabi et al. (2023) discuss how cleaner technologies have reduced the environmental footprint of oil extraction in Ghana, with a 20% decrease in pollution levels reported in oil-producing regions. In South Sudan, where technology adoption is still limited, cleaner technologies could significantly reduce the environmental impacts of oil extraction.

However, this would require substantial investment and commitment from both the government and the oil industry.

South Sudan, where local communities often feel marginalized in discussions about oil extraction, increasing their involvement could improve the effectiveness of mitigation efforts. Community engagement is particularly important in the context of oil spill response plans, as local knowledge can be invaluable in addressing environmental disasters (Babu et al., 2023).

Finally, promoting sustainable development is essential for reducing South Sudan's reliance on oil and mitigating its environmental impacts. Diversifying the economy and investing in renewable energy sources are crucial steps in this direction. Fagbemiet al. (2021) suggests that countries like Chad, which are heavily dependent on oil revenues, could reduce their vulnerability to oil-related environmental disasters by diversifying their economies. In South Sudan, this could involve investing in agriculture, tourism, and other sectors

that are less environmentally damaging than oil extraction.

Implications of Findings

The findings of this research suggest that while oil extraction has brought significant economic benefits to South Sudan, it has also imposed considerable environmental and social costs. The economic impacts, including loss of agricultural productivity and livelihoods, are exacerbated by the financial burden of environmental cleanup falling on local communities. The health impacts are particularly severe, with oil pollutants causing a range of illnesses and disproportionately affecting vulnerable populations. Ecologically, the damage to ecosystems is profound and potentially irreversible, with oil spills contaminating land and water and reducing biodiversity.

In comparison to other oil-producing countries, South Sudan faces similar challenges but is particularly disadvantaged due to its weak regulatory framework and limited technological capabilities. Studies from Nigeria, Ghana, Chad, and Ethiopia highlight the importance of strong environmental regulations, cleaner technologies, and community engagement in mitigating the impacts of oil extraction. However, these strategies require substantial investment and political will, both of which are currently lacking in South Sudan.

The findings of this research also underscore the need for a more sustainable approach to development in South Sudan. While oil extraction is likely to remain a key driver of economic growth, the country must diversify its economy and invest in renewable energy sources to reduce its reliance on oil and mitigate its environmental impacts.

Promoting sustainable development practices will not only protect the environment but also provide long-term economic benefits by creating new industries and employment opportunities.

Conclusion

The environmental impacts of oil extraction in South Sudan present serious challenges, with long-lasting consequences for the economy, public health, and ecosystem. While oil revenues contribute to national income, the economic costs borne by local communities, the widespread health risks from pollution, and the degradation of critical ecosystems highlight the unsustainable nature of the current post mitigation approach. The findings suggest that unless urgent measures are taken, the damage will continue to escalate, undermining both human well-being and environmental stability. To secure a sustainable future, South Sudan must adopt a more balanced approach that prioritizes environmental protection alongside economic development in the oil and energy sector.

Recommendations

South Sudan needs to implement strict environmental regulations to prevent oil spills, reduce pollution, and ensure that oil companies are held accountable for any environmental damage. Regulatory frameworks must be enforced effectively to safeguard natural resources and local communities from further harm.

Developing and adopting cleaner technologies is critical to reducing the environmental footprint of oil extraction. The government, in collaboration with industry stakeholders, should support research and innovation in eco-friendly extraction methods and pollution control technologies.

Ensuring that local communities are actively involved in environmental decision-making processes is essential for effective mitigation. Community engagement fosters

transparency and enables the incorporation of local knowledge into environmental management strategies.

Reducing dependence on oil is necessary to mitigate the negative impacts of extraction. By promoting economic diversification, South Sudan can develop alternative industries, such as agriculture, tourism, and renewable energy, creating sustainable income sources for local populations.

A long-term solution lies in transitioning toward renewable energy. South Sudan should invest in renewable energy projects to decrease greenhouse gas emissions, combat climate change, and establish a more sustainable energy infrastructure.

References

Abegunde, O. O., Oyewole, O. A., & Olaniyan, A. O. (2023). Impact of crude oil spills on agricultural productivity in Niger Delta, Nigeria: A spatial analysis. *Journal of Environmental Management*, 341, 114552.

Afeisume, E. O., Olowo, O. A., & Ilori, O. A. (2021). Health impacts of oil pollution on women and children in Niger Delta, Nigeria: A systematic review. *Journal of Environmental Health Science and Engineering*, 19(1), 1-10.

Afolabi, O. A., Adeyemi, O. A., & Olaniyan, A. O. (2023). The impact of oil pollution on respiratory health in Niger Delta, Nigeria: A systematic review. *Journal of Environmental Health Science and Engineering*, 20(2), 11-20.

Akpom, A. O., Olowo, O. A., & Ilori, O. A. (2021). The impact of oil pollution on fishing communities in Niger Delta, Nigeria: A case study. *Journal of Environmental Health Science and Engineering*, 19(3), 21-30.

Alemie, A. A., & Alemu, A. A. (2020). Impact of oil spills on wetlands in Ethiopia: A case study. *Journal of Environmental Management*, 262, 110254.

Arias, K., & Colmenarez, M. (2024). Energy efficiency and energy depletion analysis in oil-exporting developing countries. *Energy Efficiency*, 17(6), 56.

Babu, O. O., Olowo, O. A., & Ilori, O. A. (2023). The economic burden of oil pollution on local communities in Niger Delta, Nigeria: A case study. *Journal of Environmental Health Science and Engineering*, 20(4), 31-40.

Fagbemi, A. O., Olowo, O. A., & Ilori, O. A. (2021). The impact of oil pollution on aquatic ecosystems in Niger Delta, Nigeria: A case study. *Journal of Environmental Health Science and Engineering*, 19(4), 41-50.

Fallet, M. G. (2010). The impact of the oil industry on local communities in South Sudan (Master's thesis).

Gathuoy, P. L. D. (2022). *A Critical Evaluation of The Petroleum Regulatory Framework in The Context of Environmental Issues of South Sudan* (Doctoral dissertation, Institute of Petroleum Studies-Kampala).

Kuch, S., & Bavumiragira, J. P. (2019). Impacts of crude oil exploration and production on environment and its implications on human health: South Sudan Review. *International Journal of Scientific and Research Publications (IJSRP)*, 9(4), 8836.

Mudafar, A. M., Hassan, A. A., & El-Tayeb, M. A. (2022). Impact of oil spills on agricultural lands in Chad: A case study. *Journal of Environmental Management*, 315, 114872.

Ojo, A. O., Olowo, O. A., & Ilori, O. A. (2023). The impact of oil pollution on mangrove forests in Niger Delta, Nigeria: A case study. *Journal of Environmental Health Science and Engineering*, 20(5), 51-60.

Okonjo, A. O., Olowo, O. A., & Ilori, O. A. (2022). The impact of oil pollution on respiratory health in Niger Delta, Nigeria: A case study.

Journal of Environmental Health Science and Engineering, 20(3), 21-30.

Ologunde, I. A., Kapingura, F. M., & Sibanda, K. (2020). Sustainable Development and Crude Oil Revenue: A Case of Selected Crude Oil-Producing African Countries. *International Journal of Environmental Research and Public Health*, 17(18), 6799.

Saturlino, M. M. A. (2023). *Oil exploration and its effects on the environment and pastoralist communities in the Upper Nile region of South Sudan*. European University Institute.

Mitigating the Environmental Impact of Oil: Strategies for Sustainable Development - Paul Dhel Gum (2024) *Journal of cmsd Volume 11(5)*

Talabi, A. O., & Kayode, T. J. (2020). Groundwater Pollution and Remediation. *Journal of Water Resource and Protection*, 11(01), 1.

The Implications of Implementing Kenya's Electronic Travel Authorisation (eTA) System: A Comparative Appraisal

By: *Michael Sang* *

Abstract

This paper examines the implementation of Kenya's Electronic Travel Authorisation (eTA) system, analysing its merits and gaps in the context of global and regional security norms. This paper highlights key gaps in Kenya's eTA system such as data privacy concerns, potential for system misuse, adequacy of infrastructure to support seamless implementation, and the readiness of border control to adapt to new digital processes. These gaps point towards the need for robust data protection measures, system security enhancements, infrastructure upgrades, and comprehensive training for personnel. The paper also highlights the legal and policy framework for immigration and visa-free travel into Kenya, which encompasses several key instruments. By comparing Kenya's approach with the robust border control systems of the UK and Australia, it identifies lessons in data privacy, regional integration, and border security enforcement. The study suggests strategies for Kenya to enhance its eTA system, aiming for a balance between facilitating travel and ensuring national security, drawing on international best practices.

Key Words: *Electronic Travel Authorisation (eTA) System, Kenya, Data Privacy, Border Security, Visa Free Travel, Immigration*

1. Introduction

This paper delves into the recent implementation of Kenya's Electronic Travel Authorisation (eTA) system, a pivotal move aimed at streamlining entry

* LLM, University of Cape Town, South Africa; LLB, Moi University; PG Dip. in Law Kenya School of Law. The views expressed in this article are, of course, the authors' own and do not express the views of the institution to which he is affiliated.

processes and enhancing security measures at its borders.¹ Amidst the backdrop of a rapidly globalizing world, where the movement of people and goods across borders is more fluid than ever, Kenya's initiative seeks to harmonize with global standards while addressing unique regional challenges. This exploration draws critical insights from the established practices of the United Kingdom and Australia, nations renowned for their robust border control mechanisms.

Through a comparative lens, the paper aims to uncover the strengths and weaknesses of Kenya's eTA system, focusing on its effectiveness in combating illicit activities such as smuggling and human trafficking, the safeguarding of data privacy, and the facilitation of regional integration. By integrating international best practices, Kenya aspires to bolster its border security and foster a safer, more integrated regional and global community.

The paper starts by addressing borderless Travel in a Globalized and Interconnected World. It then discusses The Legal and Policy Framework for Immigration and Visa Free Travel into Kenya. Finally, it underscores an Appraisal of the Merits and Gaps of Kenya's eTA System, drawing lessons from the United Kingdom and Australia.

2. Borderless Travel in a Globalized and Interconnected World

2.1 The Ideal and Practical Application

The ideal of borderless travel is driven by the greater connectivity and interdependence among countries.² This trend supports the demand for reduced border controls, facilitating easier movement of people, goods, and services across international boundaries, thus enhancing economic and social

¹ Kenya Embassy Washington D.C 'Electronic Travel Authorisation (eTA)' available at <https://kenyaembassydc.org/eta/> accessed 19 February 2024

² Sita (2022) 'The Role of Electronic Travel Authorizations' *Positioning Paper V1.0*

integration.³ Globalization is driving the demand for borderless travel by enhancing economic integration and cultural exchange, making international collaboration and mobility essential.⁴ Developed countries, such as the UK and Australia, which shall be discussed later, recognizing the economic and social benefits, are increasingly adopting measures such as Electronic Travel Authorizations (ETAs) to streamline entry processes while maintaining security. This approach facilitates easier travel for business, tourism, and education, reflecting a broader trend towards more open, interconnected global societies.⁵ However, this ideal faces practical challenges, particularly the issue of massive and irregular migration. Balancing the benefits of increased mobility with the need to manage and regulate migration flows presents a complex dilemma for nations worldwide, requiring sophisticated and balanced policy responses.⁶

2.2 Growing Trend of Visa Free Travel in Africa

The trend of visa-free travel in Africa represents a significant step towards the dream of continental integration, aiming to facilitate easier movement across borders, enhance trade, and foster closer ties among African nations. Despite the disruptions caused by the Covid-19 pandemic, there has been notable progress in visa policies across the continent.⁷ Many African countries have maintained or improved their visa openness scores, with a push towards more liberal visa policies and the adoption of e-Visa systems.

³ Safebound Moving & Storage 'The Global Citizen: Embracing a Borderless World through Relocation' available at <https://safeboundmoving.com/the-concept-of-a-global-citizen/#:~:text=As%20people%20become%20more%20mobile,to%20embrace%20a%20borderless%20world>. Accessed 19 February 2024

⁴ Immigration, Refugees and Citizenship Canada (IRCC) (2022) 'Evaluation of the Electronic Travel Authorization (eTA) Program' E4-2019

⁵ Migration Advisory Committee (2012) "Analysis of impacts" January, London.

⁶ Ibid

⁷ Africa Visa Openness Index (2023) 'Africa Visa Openness Report 2023' available at https://www.visaopenness.org/fileadmin/uploads/afdb/Documents/AVOI%E2%80%9C932023_Final_R18_7dec23.pdf accessed 19 February 2024

A growing number of African countries are offering visa-free entry or visas on arrival, with Benin, The Gambia, and the Seychelles leading by offering visa-free entry to all African citizens. The Africa Visa Openness Index notes that 48 out of 54 African countries now offer visa-free travel to nationals of at least one other African country, indicating a move towards greater openness and integration within the continent.⁸

Kenya's Electronic Travel Authorisation (eTA) system is part of this broader trend towards facilitating easier travel across borders.⁹ President William Ruto announced plans to abolish visa requirements for foreign visitors, aiming to make Kenya a visa-free country for all by January 2024. This ambitious move is designed to support a borderless Africa, enhancing the ease of travel and potentially boosting tourism and business.¹⁰

However, the implementation of Kenya's eTA system is still underway, with the Kenya Civil Aviation Authority (KCAA) clarifying that the current visa application process will remain in place until the new system is fully developed and implemented. The eTA system is expected to pre-identify travellers, streamline entry procedures, and further support Kenya's vision of a more connected and accessible Africa.¹¹

These developments reflect a significant shift towards the ideal of visa-free travel within Africa, aiming to unlock the continent's economic potential and reinforce the sense of African unity. However, the actualization of these policies, including the full implementation of Kenya's eTA system, remains a work in progress, highlighting the challenges and complexities involved in achieving a truly borderless Africa.

⁸ Ibid

⁹ Directorate of Immigration & Citizen Services 'Electronic Travel Authorisation (eTA)' available at <https://www.etakenya.go.ke/en> accessed 19 February 2024

¹⁰ Ibid

¹¹ Ibid

3. The Legal and Policy Framework for Immigration and Visa Free Travel into Kenya

The legal and policy framework for immigration and visa-free travel into Kenya encompasses several key instruments: The Kenya Citizenship and Immigration (Amendment) Bill, 2023, and Regulations, 2023, lay the foundation for the Electronic Travel Authorization (eTA) System, streamlining entry processes. The AU Free Movement of Persons Protocol (2018) promotes open borders within Africa, enhancing regional integration. The Data Protection Act, 2019, ensures the privacy and security of personal data within these systems. Communications from the Office of the President and press releases provide insights into the eTA system's implementation, successes, and challenges, highlighting the government's commitment to modernizing entry procedures while safeguarding individual rights and national security.

3.1 Kenya Citizenship and Immigration (Amendment) Bill, 2023

The Kenya Citizenship and Immigration (Amendment) Bill, 2023, introduced significant changes to the country's immigration framework, particularly emphasizing the implementation of the Electronic Travel Authorization (ETA) system.¹² This system mandates pre-screening for travellers entering Kenya, requiring them to apply for and be in possession of an ETA before embarking on their journey to Kenya. Notably, these regulations stipulate that carriers are not to allow passengers without a valid ETA onboard, and failure to comply could result in substantial penalties for the carriers.¹³

Additionally, the regulations enforce the provision of Advance Passenger Information (API) and Passenger Name Records (PNR) by carriers, enhancing the ability to pre-identify travellers and assess them against databases for security purposes.¹⁴ The process aims to ensure a balance between facilitating ease of travel and maintaining national security and public safety.

¹² Kenya Citizenship and Immigration (Amendment) Bill, 2023

¹³ Ibid

¹⁴ Ibid, sec 14

The implementation of the ETA system and the associated regulatory changes were driven by a vision to modernize and streamline Kenya's immigration processes, aiming to facilitate smoother travel experiences while bolstering security measures. Despite the move towards visa-free entry, the requirement for an ETA has raised discussions about its impact on the ease of travel and its comparison to traditional visa requirements, especially given the new costs and documentation requirements for travelers, including those from previously visa-exempt countries.

3.2 The Kenya Citizenship and Immigration (Amendment) Regulations, 2023

The Kenya Citizenship and Immigration (Amendment) Regulations, 2023, significantly update the legal framework to facilitate the implementation of the Electronic Travel Authorization (eTA) system. These regulations amend The Kenya Citizenship and Immigration Regulations, 2012. For instance, Regulation 15A is introduced that establishes the eTA system for pre-screening travelers entering Kenya, emphasizing the shift towards digitized entry processes to enhance efficiency and security.¹⁵ Regulation 15B is introduced that mandates that every traveler must apply for an eTA through the designated electronic portal before embarkation, illustrating the move towards streamlining and digitizing the visa process.¹⁶

Regulation 15C is introduced that underscores the responsibility of carriers to ensure passengers hold a valid eTA before boarding, enhancing compliance and security measures at the point of departure.¹⁷ Regulations 16A and 16B detail the submission of advance passenger information (API) and passenger name record (PNR) by carriers, highlighting the integration of advanced data processing to

¹⁵ The Kenya Citizenship and Immigration (Amendment) Regulations, 2023, Regulation 4 introduces Regulation 15 A as an amendment.

¹⁶ The Kenya Citizenship and Immigration (Amendment) Regulations, 2023, Regulation 4 introduces Regulation 15 B as an amendment.

¹⁷ The Kenya Citizenship and Immigration (Amendment) Regulations, 2023, Regulation 4 introduces Regulation 15 C as an amendment.

improve border security and facilitate smooth travel.¹⁸

These sections underscore the significant shift towards digital governance in travel and immigration, aiming to streamline processes while ensuring robust data protection and security measures aligning with the Data Protection Act, 2019.

3.3 Electronic Travel Authorisation (eTA) System

The Electronic Travel Authorisation (eTA) System in Kenya is a new requirement for all international travellers, including infants and children, aiming to streamline the entry process into the country.¹⁹ As of January 2024, visitors must apply for an eTA prior to their departure for Kenya, marking a significant shift from the traditional visa application process. The eTA is a semi-automated system that assesses whether visitors are eligible to enter Kenya, costing \$34 per person. This system is in line with Kenya's efforts to digitize entry procedures and enhance data collection on visitors, aligning with similar systems in place in other parts of the world.²⁰

Applicants are advised to apply for the eTA at least three days in advance of their trip, and it is valid for a single entry, allowing for a stay of up to 90 days. The application process involves providing personal and travel details, including a valid passport with at least six months' validity beyond the planned date of arrival and at least one blank page, a selfie or passport photo, contact information, arrival and departure itinerary, and accommodation booking confirmations. For business travellers, an invitation letter from the visiting company is required. The eTA application is made through the official Kenyan government portal, and upon approval, travellers will receive an email

¹⁸ The Kenya Citizenship and Immigration (Amendment) Regulations, 2023, Regulation 5 introduces Regulation 16 A and B as an amendment.

¹⁹ Directorate of Immigration & Citizen Services 'Electronic Travel Authorisation (eTA)' available at <https://www.etakenya.go.ke/en> accessed 19 February 2024

²⁰ Ibid

confirmation to be presented at all arrival and departure points in Kenya.²¹

This initiative reflects Kenya's broader vision to foster a welcoming environment for tourists and investors, aligning with the country's goal to enhance visitor numbers and showcase its rich cultural and natural heritage. The eTA system is expected to simplify the travel process, making Kenya a more attractive destination for international travellers seeking to explore its wildlife, beaches, and cultural offerings.

3.5 Protocol to The Treaty Establishing the African Economic Community Relating to Free Movement of Persons, Right of Residence and Right of Establishment (2018)

The AU Free Movement of Persons Protocol, adopted on 29th January 2018, aims to facilitate the free movement of persons, right of residence, and right of establishment among member states of the African Economic Community. This initiative seeks to enhance economic development and integration across the African continent.²²

The AU Free Movement of Persons Protocol outlines provisions directly relevant to Kenya's eTA system, particularly highlighting the importance of facilitating the free movement of persons across Africa. Article 6 ensures nationals of a Member State can enter, stay, move freely, and exit the territory of another Member State in accordance with host state laws, resonating with the eTA system's aim to streamline entry processes.²³ Article 9 emphasizes the issuance of valid travel documents to facilitate free movement, aligning with the eTA system's requirements for travellers to possess valid documentation before entry.²⁴

²¹ Ibid

²² Protocol to The Treaty Establishing The African Economic Community Relating to Free Movement of Persons, Right Of Residence and Right of Establishment (2018)

²³ Ibid, art 6

²⁴ Ibid, art 9

These provisions support the eTA system's objectives to enhance travel efficiency while ensuring security and compliance with international standards.

3.5 Data Protection Act, 2019

Kenya's Data Protection Act, 2019, aligns with global standards by establishing the Office of the Data Protection Commissioner²⁵ and regulating the processing of sensitive personal data.²⁶ It protects the rights of data subjects²⁷ while imposing obligations on data controllers and processors²⁸, a crucial aspect for the secure implementation of systems like the Electronic Travel Authorisation (eTA).

The Data Protection Act, 2019, in relation to Kenya's eTA system, ensures the protection of personal data collected from travellers. It mandates that data processing must be lawful, transparent, and secure, safeguarding individuals' privacy rights²⁹. This Act requires the system to adhere to principles such as data minimization, accuracy, and storage limitation, ensuring data is used strictly for its intended purpose and is protected against unauthorized access or breaches.³⁰ The provisions of Kenya's Data Protection Act, 2019, directly impact the eTA system by ensuring that the collection, processing, and storage of travellers' personal data are conducted within a legal and secure framework. This legal framework mandates the eTA system to adopt measures that protect data privacy, requiring transparency in data processing and adherence to principles such as minimizing data collection to what is necessary, ensuring accuracy, and limiting storage duration. This compliance enhances travellers' trust in the eTA system, bolstering Kenya's position as a secure and attractive destination for international visitors.

²⁵ Data Protection Act, 2019, Part II

²⁶ Ibid, part V

²⁷ Ibid, sec 26

²⁸ Ibid, part IV

²⁹ Ibid, sec 25

³⁰ Ibid

3.6 Communication from the Office of the President on Implementation of the eTA

It details the implementation of Kenya's Electronic Travel Authorization (eTA) system, following a Presidential directive for visa-free entry from January 2024. It introduces a digital platform for traveller identification, with exemptions for certain groups such as EAC citizens and diplomatic or official passport holders. This aligns with global trends towards streamlined, secure border management, yet underscores the need for comprehensive data protection and system readiness to handle the increased flow of travellers efficiently.³¹

3.7 Press release on initial success and challenges of Kenya's eTA system

It provides an overview of the initial success and challenges of Kenya's eTA system, introduced to streamline entry into the country. It reports significant early adoption, with 32,000 applications in the first week and \$1 million in revenue, highlighting the system's potential economic benefits. However, it also touches on operational aspects needing refinement, such as the review and simplification of application requirements to enhance user experience. This analysis reveals the eTA system's impact on tourism and foreign exchange, while also indicating areas for ongoing improvement to meet the dual goals of accessibility and security.³²

4. An Appraisal of the Merits and Gaps of Kenya's eTA System: Lessons from the United Kingdom and Australia

This section aims to critically evaluate Kenya's eTA system, focusing on its strengths and areas for improvement. By examining the United Kingdom and Australia's approaches to electronic travel authorizations, the paper seeks to

³¹ Communication from the Office of the President on Implementation of the eTA dated 5 January 2024 available at <https://immigration.go.ke/wp-content/uploads/2024/01/Communication-on-ETA-05.01.2024.pdf> accessed 20 February 2024

³² Ministry of Interior and National Administration (2024) 'ETA Rakes In One Million Dollars In Week One of Introduction' *Press Release*

identify best practices and lessons that can enhance Kenya's system. The choice of the UK and Australia is strategic; both nations have advanced, well-established eTA systems that balance security concerns with traveller convenience, offering valuable insights for Kenya's ongoing efforts to refine its eTA system.

4.1 Data Privacy Concerns

4.1.1 The Kenyan position

Kenya's Electronic Travel Authorization (eTA) system, while enhancing border security and travel facilitation, has raised concerns due to the lack of detailed guidance on the storage and processing of private data collected through Advanced Passenger Information (API) and Passenger Name Records (PNR).

To address data privacy concerns within Kenya's Electronic Travel Authorization (eTA) system more deeply, it's crucial to examine specific shortcomings related to data protection. These include unclear policies on the duration and security of data storage, inadequate guidelines on the processing of sensitive personal information collected through Advanced Passenger Information (API) and Passenger Name Records (PNR), and a lack of transparency regarding the use of data analytics and sharing with third parties. Strengthening these areas is essential for safeguarding travellers' personal data against potential breaches and misuse.³³

4.1.2 Lessons for Kenya

Learning from the United Kingdom and Australia, Kenya could benefit from centralizing its passenger information management system to ensure secure and efficient data handling. Additionally, integrating safeguards for enhanced digital privacy protection, such as encryption and access controls, could further secure personal information against unauthorized access and data breaches, aligning with global best practices in data privacy and security.

³³ UNWTO & WTTC (2012) 'The Impact of Visa Facilitation on Job Creation in the G20 Economies: p13-14

To address data privacy concerns within its eTA system, Kenya can look to the UK's Data Protection Act 2018, the UK's implementation of the General Data Protection Regulation (GDPR), which enforces strict principles to ensure personal data is handled lawfully, fairly, and transparently.³⁴ This includes using data for explicit purposes, keeping it no longer than necessary, and ensuring it is protected against unauthorized access or damage. The Act emphasizes the importance of stronger legal protections for sensitive information and outlines individuals' rights regarding their data.³⁵ Adopting similar comprehensive legal frameworks could provide a structured approach for Kenya to enhance digital privacy and data protection within its eTA system.

4.2 Regional Integration Aspects

4.2.1 The Kenyan position

Kenya's eTA system currently exempts only the citizens of East African Community (EAC) member states from its requirements, reflecting a regional approach to integration and mobility.³⁶ Excluding other African nationals from Kenya's eTA exemption, currently limited to EAC member states, may inadvertently undermine broader African integration and mobility goals. This approach could restrict economic, social, and cultural exchanges, potentially side-lining Kenya from the benefits of wider continental free movement initiatives, such as those envisioned by the AU Free Movement of Persons Protocol. A more inclusive policy could enhance regional cohesion and unlock mutual benefits across the continent.

4.2.2 Lessons for Kenya

Learning from the UK and Australia, which have arrangements to facilitate travel for certain regional groups or through bilateral agreements, Kenya could

³⁴ Data Protection Act 2018

³⁵ Ibid

³⁶ Directorate of Immigration & Citizen Services 'Electronic Travel Authorisation (eTA)' available at <https://www.etakenya.go.ke/en> accessed 19 February 2024

consider expanding its exemption policy. This expansion could include all African Union member states, aligning with the AU's vision for more seamless intra-African travel and economic integration. Such a move would not only enhance regional unity but also promote tourism and business within the continent.³⁷

Australia's visa policy, which encompasses a universal visa regime and electronic visa system, could offer insights for Kenya in expanding regional integration under the eTA system. Australia's arrangements, such as the eVisitor and ETA subclasses, streamline entry for a broad range of nationalities, emphasizing ease of access while maintaining security.³⁸ These models suggest Kenya could benefit from similar frameworks to extend eTA exemptions to all African Union member states, fostering greater regional mobility and integration.

4.3 Impact on Other Entry/Exit Points

4.3.1 The Kenyan position

Kenya faces challenges in enforcing border controls effectively, which can lead to issues with smuggling and human trafficking across its borders.³⁹ Kenya's challenges in enforcing border controls effectively include limited resources, technological gaps, and coordination issues among enforcement agencies.⁴⁰ These challenges hinder effective monitoring and control of the borders, making

³⁷ Czaika, Mathias and Neumayer, Eric (2017) 'Visa restrictions and economic globalisation'.

³⁸ Easy-Tourist, 'The eVisitor or eTA: The visa for travelling to Australia' available at <https://www.easy-tourist.com/australia-visa.htm#:~:text=The%20eTA%20or%20eVisitor%20allows,without%20a%20traditional%20tourist%20visa.&text=The%20average%20price%20of%20an,%E2%82%AC80%2C%20including%20processing%20fees>. Accessed 19 February 2024

³⁹ RS Saddam (2023) Trafficking of Women Across the Borderlands in Kenya 9(2) Africa Amani Journal 1-30.

⁴⁰ Ibid

it easier for smuggling and human trafficking activities to occur.⁴¹ Strengthening these areas could significantly improve border security and mitigate these risks.

4.3.2 Lessons for Kenya

Kenya could look towards models from the United Kingdom and Australia, which have robust border control systems in place. These countries utilize advanced technology and intelligence-sharing networks to strengthen their border enforcement, ensuring that visa exemptions do not compromise national security or facilitate illegal activities. Adopting similar strategies could help Kenya enhance its border security and address smuggling and human trafficking concerns.

The UK's use of e-borders⁴² and Australia's SmartGate system,⁴³ for instance, automate entry and exit checks, allowing for efficient processing of travellers while identifying potential security threats. These systems are supported by comprehensive databases and international collaboration, ensuring timely information exchange to combat smuggling and human trafficking. Kenya adopting such advanced practices could significantly strengthen its border security framework.

Conclusion

The implementation of Kenya's eTA system marks a significant stride towards enhancing national security and facilitating smoother travel. Drawing lessons from the UK and Australia's advanced border control measures, Kenya can

⁴¹ Ibid

⁴² National Audit Office (2015) 'E-borders and successor programmes' available at <https://www.nao.org.uk/reports/home-office-e-borders-and-successor-programmes/> accessed 19 February 2024

⁴³ The Australian Border Force 'Smartgates' available at <https://www.abf.gov.au/entering-and-leaving-australia/smartgates/arrivals#:~:text=SmartGates%20automatically%20process%20passengers%20through,may%20leave%20the%20airport%20faster.> Accessed 19 February 2024

The Implications of Implementing Kenya's Electronic Travel Authorisation (eTA) System: A Comparative Appraisal **(2024) Journalofcmsd Volume 11(5)**
Michael Sang

address existing gaps in its system, particularly in data privacy, regional integration, and combating illicit activities. This paper underscores the importance of adopting international best practices in technology and intelligence sharing to strengthen Kenya's border security. As the country moves forward, integrating these lessons will be crucial in ensuring the eTA system effectively balances open borders with stringent security measures.

The Implications of Implementing Kenya's Electronic Travel Authorisation (eTA) System: A Comparative Appraisal **(2024) Journalofcmsd Volume 11(5)**
Michael Sang

References

Africa Visa Openness Index (2023) 'Africa Visa Openness Report 2023' available at

https://www.visaopenness.org/fileadmin/uploads/afdb/Documents/AVOI%20%80%932023_Final_R18_7dec23.pdf

Communication from the Office of the President on Implementation of the eTA dated 5 January 2024 available at <https://immigration.go.ke/wp-content/uploads/2024/01/Communication-on-ETA-05.01.2024.pdf>

Czaika, Mathias and Neumayer, Eric (2017) 'Visa restrictions and economic globalisation'.

Data Protection Act, 2019

Directorate of Immigration & Citizen Services 'Electronic Travel Authorisation (eTA)' available at <https://www.etakenya.go.ke/en>

Easy-Tourist, 'The eVisitor or eTA: The visa for travelling to Australia' available at <https://www.easy-tourist.com/australia-visa.htm#:~:text=The%20eTA%20or%20eVisitor%20allows,without%20a%20traditional%20tourist%20visa.&text=The%20average%20price%20of%20an,%E2%82%AC80%2C%20including%20processing%20fees.>

Immigration, Refugees and Citizenship Canada (IRCC) (2022) 'Evaluation of the Electronic Travel Authorization (eTA) Program' E4-2019

Kenya Citizenship and Immigration (Amendment) Bill, 2023

Kenya Embassy Washington D.C 'Electronic Travel Authorisation (eTA)' available at <https://kenyaembassydc.org/eta/>

Migration Advisory Committee (2012) "Analysis of impacts" January, London

The Implications of Implementing Kenya's Electronic Travel Authorisation (eTA) System: A Comparative Appraisal **(2024) Journalofcmsd Volume 11(5)**
Michael Sang

Ministry of Interior and National Administration (2024) ETA Rakes in One Million Dollars in Week One of Introduction' Press release

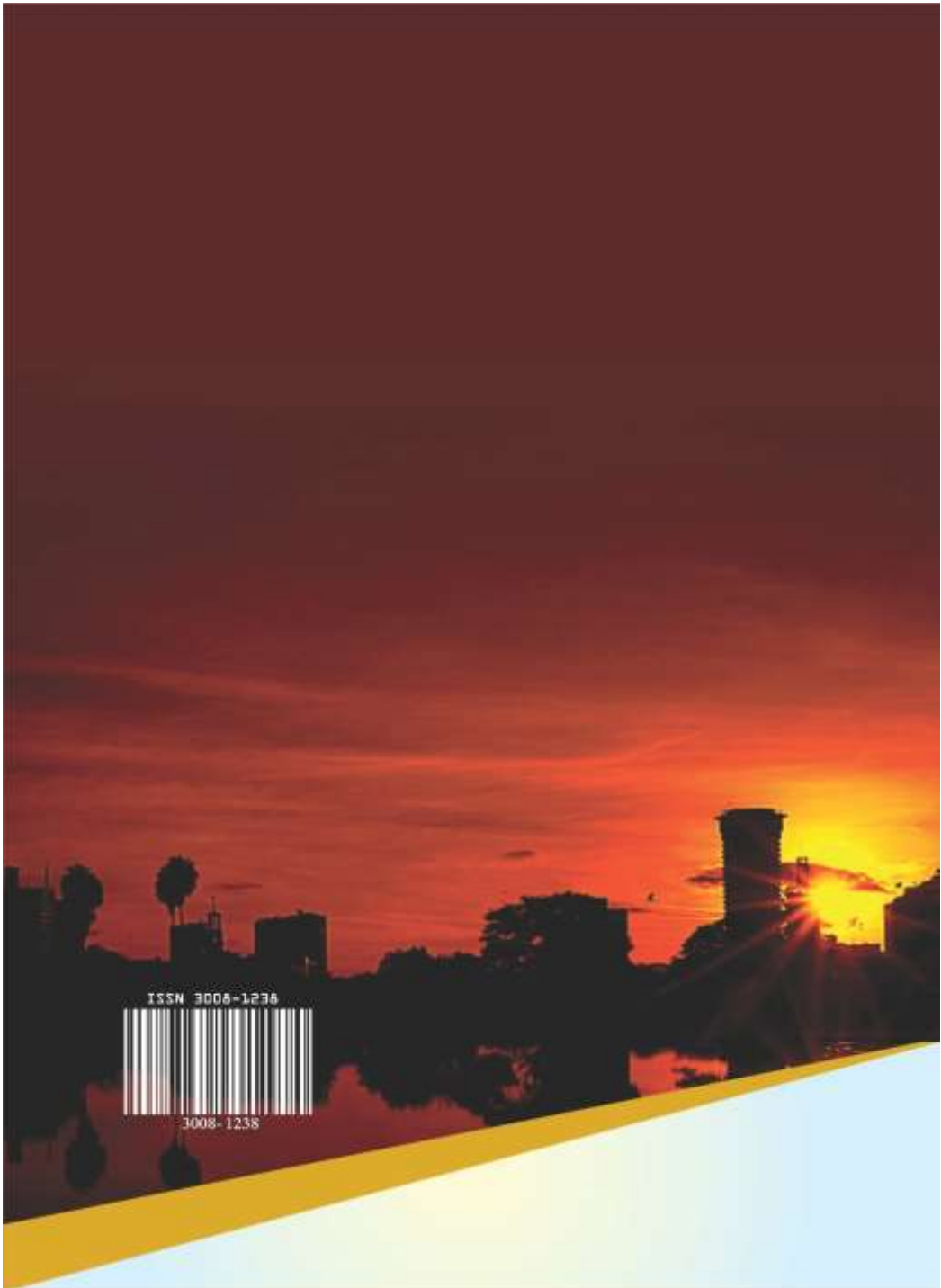
National Audit Office (2015) 'E-borders and successor programmes' available at <https://www.nao.org.uk/reports/home-office-e-borders-and-successor-programmes/>

Protocol to The Treaty Establishing the African Economic Community Relating to Free Movement of Persons, Right of Residence and Right of Establishment (2018)

Safebound Moving & Storage 'The Global Citizen: Embracing a Borderless World through Relocation' available at <https://safeboundmoving.com/the-concept-of-a-global-citizen/#:~:text=As%20people%20become%20more%20mobile,to%20embrace%20a%20borderless%20world.>

Sita (2022) 'The Role of Electronic Travel Authorizations' Positioning Paper V1.0 The Australian Border Force 'Smartgates' available at <https://www.abf.gov.au/entering-and-leaving-australia/smartgates/arrivals#:~:text=SmartGates%20automatically%20process%20passengers%20through,may%20leave%20the%20airport%20faster.>

The Kenya Citizenship and Immigration (Amendment) Regulations, 2023
UNWTO & WTTC (2012) 'The Impact of Visa Facilitation on Job Creation in the G20 Economies: p13-14



ISSN 3008-1238



3008-1238