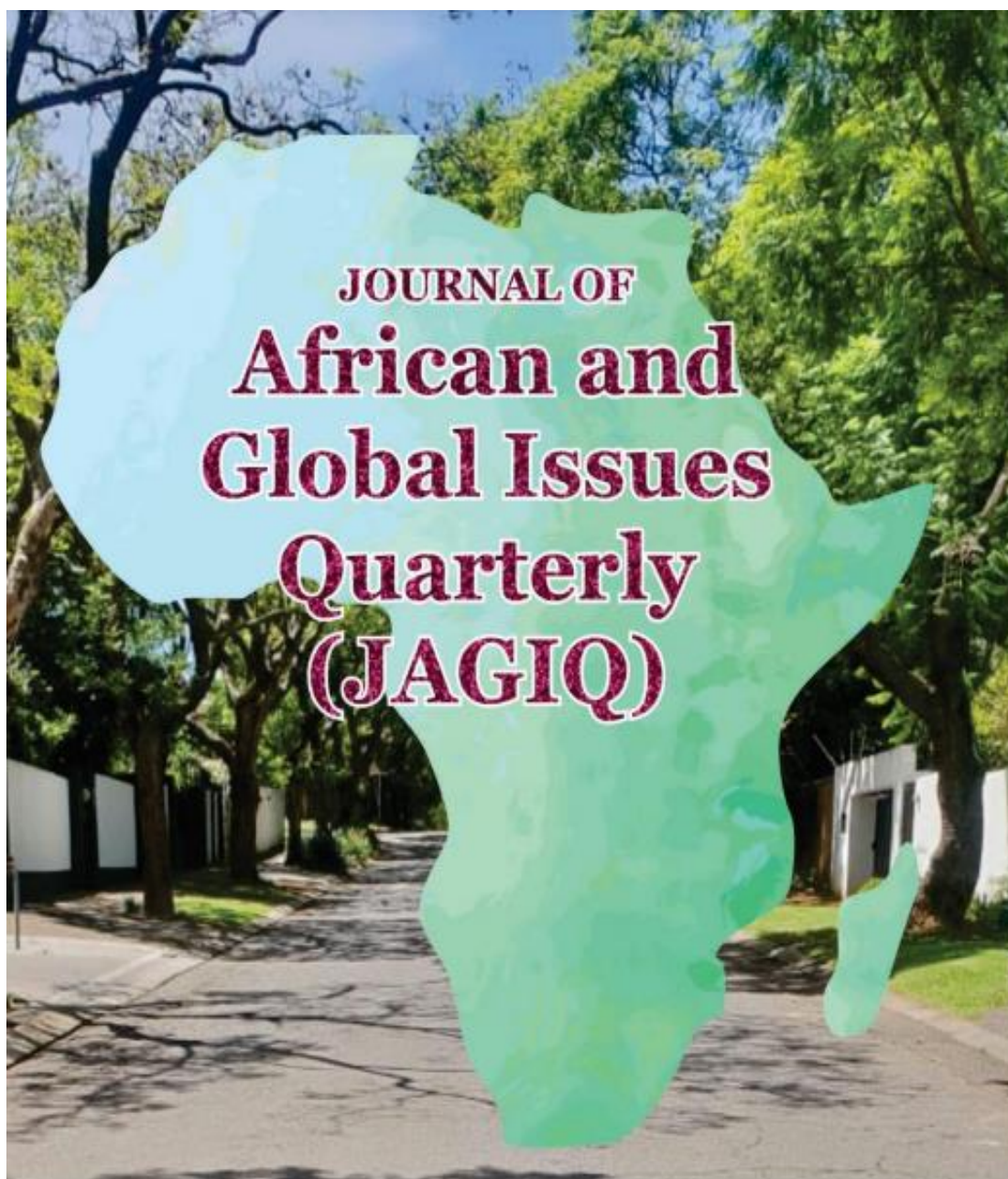




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## EDITORIAL NOTE

This volume represents concerted calls within and outside Africa on the need for multidisciplinary collaboration and research output. Specifically, papers were drawn from all disciplines and research focuses, which has further increased the quality of research and collegial engagement. Hence, topics covered in this volume cut across the areas of economics, politics, security, ICT, indigenous knowledge, development studies, finance, trade, youth engagement, agriculture, democratization, and nation-building, among others.

For instance, Thizwilondi Josephine Mudau in ***African Youths and the Promotion of Sustainable Development through the Lens of Indigenous Knowledge (IKS) in the 21st Century*** employed qualitative desktop research methodology in synthesizing existing literature to argue that IKS represents a dynamic body of wisdom encompassing sustainable agriculture, natural resource management, and community resilience and offers proven, contextually grounded solutions to modern challenges like climate change and food insecurity. The analysis highlights youth-led initiatives across the continent that are revitalizing indigenous crops, integrating traditional ecological knowledge with climate adaptation strategies, and using digital platforms for cultural preservation. Mudau concluded that for Africa to achieve authentic and sustainable development, a concerted effort is needed to empower youth through inclusive education, supportive policy frameworks, and intergenerational dialogue, thereby transforming indigenous knowledge from a cultural heritage into a living toolkit for a resilient future.

Masila Joshua Masipa in ***Beneficiaries of Corruption? An analysis of the function of South African banks in handling and making money from crime proceeds*** adopted institutional theory and the political economy of corruption and a qualitative research design that combines semi-structured interviews with compliance officers, financial regulators, and civil society actors with document analysis of Zondo Commission and Financial Intelligence Centre (FIC) reports, legal statutes, and policy papers in examining how, in spite of strict anti-money-laundering (AML) and anti-corruption laws, South African banks may profit from, handle, or ineffectively stop the flow of monies associated with corruption. Specifically, with an emphasis on whether banks directly or indirectly benefit from the proceeds of crime, Masipa investigated the relationship between financial institutions and illegal financial flows within the following objectives: (1) assess the regulatory framework that oversees AML compliance; (2) examine high-profile cases of corruption in which banks are implicated; (3) evaluate due diligence and institutional accountability; and (4) suggest changes to improve ethical banking governance.

Then Sipho Patrick Bhengu-Mancosa & Andrisha Beharry-Ramraj in ***Advancing Small, Medium, and Micro Enterprise Growth through Digitalized Enterprise and Supplier Development in South Africa*** examined the current state of Enterprise and Supplier Development (ESD) in South Africa, investigated the role of digitalization in enhancing ESD, identified the challenges and opportunities in digitalizing ESD, and provided recommendations for policymakers, corporates, and Small, Medium, and Micro Enterprises (SMMEs). A qualitative secondary data approach was employed, drawing on thematic analysis of existing literature, reports, and industry initiatives. For key findings, Bhengu-Mancosa & Beharry-Ramraj indicated that ESD adoption remains limited; digitalization (Mancosa) significantly enhances market access and supplier diversity; infrastructure and skills gaps persist; and strategic digital integration can unlock growth opportunities for SMMEs.

Lere Amusan & Ebenezer O. Oni, in their study, ***Disinvestment of Multinational Corporations (MNCs) in Developing Areas: An Assessment of Shoprite Disengagement in Nigeria, started by reflecting on why***, at the global level, many MNCs have started to disengage from their host states. In a bid to respond to the possible reasons, Amusan & Oni pushed further into examining possible reasons that could explain why Shoprite, a large South African retailing company, disinvested from Nigeria after operating in the country for about 15 years, using secondary sources supported by primary data and personal observations. For them, the reasons range from political, economic, marketing, and legal to civil society attitudes towards their business. Employing the twin theories of neoliberalism and oligopoly that facilitate globalization, Amusan & Oni concluded that, aside from losing litigation to its erstwhile Nigerian business partners, competition from domestic and foreign retail companies contributed in no small measure to why Shoprite exited the Nigerian market.

***In A sober teacher is a problem”: Unpacking Political Ideology and Emancipatory Struggles Within teacher unionism***, Zwane Thembinkosi Trevor & Matsepe David adopted the grounded postcolonial theory in examining how teacher unions embody and deploy political stances and ideologies to promote the emancipation and freedom of education, as well as the broader communities they aim to serve. Clearly, Trevor and Matsepe employed a qualitative interpretivist approach to analyze data from narrative interviews with unionized educators, along with further examination of public union discussions. Key findings of their research indicated four interrelated themes: (1) political consciousness as both a threat to order and a driver of democratic emancipation; (2) teacher unions functioning as a counter-hegemonic force challenging neoliberal geopolitics and political norms; (3) the ideological repositioning of teacher unions as intellectual activists rather than compliant officials; and (4) tensions between political agency and professional identity.

Douglas Nyath in ***Rural Youth and the Future of Farming in Sub-Saharan Africa: Revisiting the Abandonment Debate*** explored whether rural youth are truly abandoning agriculture or are instead redefining their involvement through diversified livelihood strategies. It examines the socio-economic, institutional, and cultural factors influencing youth decisions and analyzes how emerging hybrid forms of engagement—such as agripreneurship and part-time farming—are reshaping rural economies. A systematic desktop synthesis of peer-reviewed literature (2000–2025) was conducted using databases like Google Scholar, Scopus, and Web of Science. Nyaath observed that youth disengagement from agriculture is not uniform but context-specific, and the key determinants to such disengagement include land scarcity, education, labor market structures, gender norms, and limited access to finance and technology.

Then, in ***Equal Ideals, Unequal Realities: Gender Dynamics in the Workplace of an International Religious Non-governmental Organisation in Eswatini***, Thembumenzi Jomo Ntshalintshali & Innocent Simphiwe Nojiyeza examined attitudes, experiences, and organizational practices regarding gender roles, power dynamics, and inclusivity by drawing on in-depth interviews and focus groups with 20 employees from a range of departments and hierarchical levels. The results of their findings show that male participants, who were primarily ideologically devoted to gender equality, showed conflicted feelings about shifting power dynamics. Unconscious bias, policy implementation gaps, and organizational culture were equally identified as the primary obstacles to change. The results emphasize that in order to guarantee changes in gender equality, context-specific solutions are required that go beyond the adoption of policies.

**In Indigenous Knowledge Systems and Environmental Conservation** *Ngugi's Petals of Blood*, Thabo Prince Zondo started by reflecting on members of the impoverished and socio-economically disadvantaged community who are distressed by incessant drought and who consult a seer and offer sacrifices to seek solutions. Using this as a point of departure, Zondo explored how text gestures and Indigenous Knowledge Systems (IKS) address the real dilemmas faced by Africans following the extensive and cross-generational crises that accompany coloniality. In this, Zondo provided an ecocritical reading of the text, drawing on relevant postcolonial/decolonial ideas to illustrate the ways in which indigenous African epistemologies can indeed boost efforts at environmental conservation and poverty alleviation in rural communities today.

Also, **Rendani Tshifhumul in Exploring the Role of African Indigenous Knowledge Systems in Healing Practices and Resilience During the COVID-19 pandemic in Thohoyandou**, presented a narrative inquiry into the experiences of individuals who survived COVID-19 without requiring hospitalization, based on in-depth interviews with three respondents. For Tshifhumul, among the identified practices were the inhalation of steam treated with stones and salt, as well as the application of various herbal concoctions, including *Tshiumbeumbe*, *Musese*, *Mufula Musudzungwane*, *Miora*, and *Mubomo*, guava leaves, and lemon grass tea, including a mixture that comprises onion, ginger, lemon, honey, and garlic. Therefore, Tshifhumul concludes that these findings not only shed light on the adaptive strategies employed by individuals in response to the pandemic but also underscore the significance of traditional healing practices in the context of contemporary health crises. Khulisile Judith Nkuna & Sikhumbuzo Sibuso Khoza, in their work, **Capturing Cultural Heritage: Exploring the Poetic Elements of Domesticated Animal Praise**, carried out an analytical analysis of the lyrical components found in the praises of Siswati domestic animals. Nkuna & Khoza observed that expressing gratitude to animals for their contributions to human life remains a significant goal of animal praise. Reflecting on case studies, they noted that the Nguni people view domestic animals as very close environmental companions, particularly for those who live in rural areas. Praise poetry's primary goal is to commemorate great men's accomplishments. However, the reverse is the case for the Swati people, who have a tradition of honoring non-human animals in their poetry, including the wild animals they encounter in their environs as well as the domestic livestock they raise.

Intaher M. Ambe, Ellsworth C. Jonathan, Phathutshedzo D. Lavhelani,\* and David H. Selby, in their study, **Exploring the landscape of demand management practices in the public health sector in the Gauteng Province, South Africa: An Empirical Analysis**, employed secondary sources in determining what demand management practices are employed within Gauteng, South Africa, and public health sector institutions. Findings in their study revealed substantial obstacles in organizational structure, demand management techniques, budget, and alignment between demand planning and strategic goals, as well as supply chain management (SCM) rules, regulations, and specifications. They conclude that the paucity of demand management implementation in public sector organizations reveals a misalignment between strategic goals, demand management, and demand planning, resulting in a loss of value for public sector organizations.

**Aderinsola E. Kayode, Shalini Sing, & Patricia P. Badenhorst's research, ICT for Indigenous Knowledge Dissemination and Education in Africa: A Systematic Review**, conducted a systematic review of literature published between 2015 and 2025 to examine how ICT tools and platforms have been deployed to support indigenous knowledge dissemination and education in African contexts. The findings of their research indicated that ICT can enhance indigenous knowledge preservation, improve youth engagement, facilitate intergenerational learning, and broaden global visibility of African

knowledge systems when implemented with community participation. However, challenges remain regarding digital access, cultural sensitivity, intellectual property rights, and the sustainability of technology-driven initiatives.

In ***Donald Trump-Twitter Diplomatic Disruptions And Impact On The Post-World War II International Order.***, Ndivhoniswani Aaron Tshidzumba & Puseletso Nthate examine how President Donald Trump's unprecedented use of Twitter as a direct channel for foreign policy communication disrupted established diplomatic norms inherited from the post-World War II international order. Through content analysis of Trump's social media communications, examination of foreign policy outcomes, and comparative analysis with traditional diplomatic practices, Tshidzumba & Nthate demonstrated that Trump's social media presidency constituted a significant departure from institutional diplomacy and contributed to broader challenges facing the established international order. Further findings reveal that digital direct engagement by heads of state bypasses institutional constraints, undermines multilateral consensus-building, and creates new vulnerabilities in international relations.

Furthermore, in ***Determinants And Effect Of Small-Scale Livestock Production On Household Income In Malawi: Evidence From Fifth Integrated Household Survey***, Gladson Andrew Chipala, Christopher Chombo & Hannah Dunga examined the determinants and effects of small-scale livestock production on household income among farmers in Malawi, using cross-sectional data from the Fifth Integrated Household Survey (IHS5) with a sample of 8,795 households. Their key findings indicate that household size, access to credit, access to extension services, landholding size, distance to the market, and location in the Northern region significantly increase the likelihood of participation in livestock production. Notably, households engaged in livestock production earned, on average, an additional MWK 36,405.76 compared to non-producing households, demonstrating its important role in improving economic welfare.

In ***Navigating Artificial Intelligence Personalization and Consumer Privacy in Digital Marketing across South Africa and Global Contexts***, Suraksha Moothura and Andrishah Beharry-Ramraj critically examined how AI-driven hyper-personalization in digital marketing influences consumer privacy, with a specific focus on its ethical implications and regulatory challenges in South Africa in comparison to global standards using desktop literature review methodology. Moothura & Beharry—Ramraj observed that ethical concerns such as manipulation, algorithmic bias, and reduced consumer autonomy were found to be inadequately addressed in South Africa, where legal instruments like POPIA lack the specificity and enforcement capacity evident in global standards like the GDPR. Taleat, Bisiriyu Abiodun & Lukamba, Muhlya Tshombe's article, ***Energy Sustainability and Sustainable Development Agenda: The Role of Public-Private Partnership in South Africa***, investigated the role and effectiveness of Public-Private Partnerships (PPPs) in South Africa's energy development towards sustainability using a qualitative desk research methodology to analyze secondary data from policy documents, scholarly literature, and government publications. For Abiodun & Tshombe, key findings demonstrate that PPPs have attracted a substantial amount of private investment and benefited the economy through job creation and community development. However, institutional and systemic barriers, e.g., Eskom monopoly, regulatory uncertainty, grid integration constraints, and institutionalized dependency on coal, impede the full implementation of PPPs in accelerating the energy transformation. Hence, they recommend policy stability, energy regulation reform, enhancing financial methods, and ensuring that social equity consideration is factored into PPP structures.

For Olukayode Idris Lasisi in ***The Governance–Development Nexus in Nigeria: A Conceptual Synthesis of Good Governance and Policy Discourse Theories***, a qualitative, conceptual, and desk-based review approach was employed, relying on the literature, policy documents, and theoretical frameworks in reevaluating the governance development interface in Nigeria in terms of the role of institutional weaknesses, the inconsistency of policies, and discursive framing in the determination of sustainable development outcomes. Findings revealed that weak institutions, corruption, bureaucratic inefficiencies, low accountability, and marginalization in policymaking processes bedeviled Nigeria’s sustainable development, thereby distorting policy implementation and weakening effective service delivery. Lasisi concludes by calling for the need to strengthen institutions, improve transparency, guarantee policy sustainability, encourage civic participation, and apply digital governance solutions, which is essential to attaining sustainable development.

Eyitayo Francis Adanlawo & Mpho Chaka in ***The Effect of Ethnicity And Politics on the Democratization of African Nations*** examined the theoretical challenge that ethnicity poses to the African state and the challenges it poses for democratization on the continent. To guide the discourse, critical questions are raised: What kind of connection exists in Africa between politics and ethnicity? Under what conditions may ethnicity either support or undermine democracy? Can citizenship rights be reconciled with ethnicity? . Furthermore, Adanlawo & Chaka explored the evolution of ethnicity from the viewpoints of development communication and provided it with a psycho-social meaning. In their conclusion, Adalanwo & Chaka posited that, if ethnicity has an informative component, we should anticipate that voters' reliance on ethnic cues will decrease when certain forms of higher-quality information become available.

Lindokuhle Senamile Ntuli & Innocent Simphiwe Nojiyeza in ***Does Resource Scarcity Constrain Rural Women’s Entrepreneurial Performance in KwaZulu-Natal, South Africa?***, examined whether resource scarcity significantly constrains the entrepreneurial performance of rural women in KwaZulu-Natal (KZN), South Africa. Anchored in the Resource-Based View (RBV), the study adopts a quantitative research design using survey data collected from 273 rural women entrepreneurs across uMhlabuyalingana, Big5Hlabisa, and eJozini municipalities. **Ntuli & Nojiyeza** revealed statistically significant relationships between entrepreneurial performance and seven resource-based constraints: leadership skills, financial institutional barriers, entrepreneurial experience, regulatory constraints, access to financial resources, technological limitations, and limited training opportunities. Lastly, in ***Transformative Governance Frontiers: Relational Public Administration for Smart City Inclusivity***, Melvin Diedericks examined the conceptualization of informal systems in the context of South African smart city initiatives. By repositioning informal systems as co-creators in urban governance, this study advocates for a paradigm shift from technocratic optimization to relational inclusion. This reframing aligns with South Africa's constitutional and developmental goals, enabling transformative governance and the effective localization of SDGs in sustainable cities.

It is expected that these works compiled in this volume will further enrich the discourse and provide policy options to individuals, governments, and countries, particularly in Africa.

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**TABLE OF CONTENT-AGIQ APRIL 2026 EDITION**

|                                                                                                                                                                                        |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. African Youths and the Promotion of Sustainable Development through the Lens of Indigenous Knowledge in the 21st Century<br><b>Thizwilondi Josephine Mudau</b>                      | <b>9</b>   |
| 2. Beneficiaries of Corruption? An Analysis of the Function of South African Banks in Handling and Making Money from Crime Proceeds<br><b>Masila Joshua Masipa</b>                     | <b>25</b>  |
| 3. Advancing Small, Medium and Micro Enterprise Growth through Digitalised Enterprise and Supplier Development in South Africa<br><b>Sipho Patrick Bhengu, Andrisha Beharry-Ramraj</b> | <b>40</b>  |
| 4. Disinvestment of Multinational Corporations in Developing Areas: An Assessment of Shoprite Disengagement in Nigeria<br><b>Lere Amusan and Ebenezer O. Oni</b>                       | <b>64</b>  |
| 5. A sober teacher is a problem”: Unpacking Political ideology and Emancipatory Struggles Within Teacher Unionism<br><b>Zwane Theminkosi Trevor, Matsepe David</b>                     | <b>78</b>  |
| 6. Rural Youth and the Future of Farming in Sub-Saharan Africa: Revisiting the Abandonment Debate<br><b>Douglas Nyathi, Stanley Maphosa</b>                                            | <b>98</b>  |
| 7. Does Resource Scarcity Constrain Rural Women’s Entrepreneurial Performance in KwaZulu-Natal, South Africa?<br><b>Lindokuhle Senamile Ntuli, Innocent Simphiwe Nojiyeza</b>          | <b>114</b> |
| 8. Indigenous Knowledge Systems and Environmental Conservation in Ngugi’s <i>Petals of Blood</i><br><b>Thabo Prince Zondo</b>                                                          | <b>128</b> |
| 9. Exploring the Role of African Indigenous Knowledge(IKS) Systems in Healing Practices and Resilience During the COVID-19 Pandemic in Thohoyandou<br><b>Rendani Tshifhumulo</b>       | <b>144</b> |
| 10. Capturing Cultural Heritage: Exploring the Poetic Elements of Domesticated Animal Praise<br><b>Khulisile Judith Nkuna &amp; Sikhumbuzo Sibusiso Khoza</b>                          | <b>164</b> |

11. Exploring the landscape of demand management practices in public health sector in the Gauteng Province, South Africa: An Empirical Analysis  
*Ellsworth C Jonathan, Phathutshedzo D Lavhelani, David H Selby*  

**178**
12. ICT For Indigenous Knowledge Dissemination And Education In Africa: (A Systematic Review)  
*Aderinsola E. Kayode , Shalini Sing, Patricia P. Badenhorst*  

**198**
13. Donald Trump-Twitter Diplomatic Disruptions And Impact On The Post-World War II International Order.  
*Ndivhoniswani Aaron Tshidzumba*  

**222**
14. Determinants And Effect Of Small-Scale Livestock Production On Household Income In Malawi: Evidence From Fifth Integrated Household Survey  
*Gladson Andrew Chipala, Christopher Chombo, Hannah Dunga*  

**239**
15. Navigating Artificial Intelligence Personalisation and Consumer Privacy in Digital Marketing across South Africa and Global Contexts  
*Suraksha Moothura and Andrishah Beharry-Ramraj*  

**261**
16. Energy Sustainability and Sustainable Development Agenda: The Role of Public-Private Partnership in South African  
*Taleat, Bisiriyu Abiodun, Lukamba, Muhlya Tshombe*  

**286**
17. The Governance–Development Nexus in Nigeria: A Conceptual Synthesis of Good Governance and Policy Discourse Theories  
*Olukayode Idris Lasisi*  

**311**
18. Equal Ideals, Unequal Realities: Gender Dynamics in the Workplace of an International Religious Non-governmental Organisation in Eswatini  
*Thembumenzi Jomo Ntshalintshali, Innocent Simphiwe Nojiyeza*  

**324**
19. The effect of ethnicity and politics on the democratisation of African nations  
*Eyitayo Francis Adanlawo, Mpho Chaka*  

**340**
20. Transformative Governance Frontiers: Relational Public Administration for Smart City Inclusivity  
*S Sikwela & M Diedericks*  

**352**

## INDIGENOUS KNOWLEDGE SYSTEMS AND ENVIRONMENTAL CONSERVATION IN NGUGI'S PETALS OF BLOOD

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### **Abstract**

*African people had high expectations from their post-independence leaders after colonial rulers left their countries. However, they have been greatly disappointed and feel betrayed as many African leaders appear to have taken the reigns only to enrich themselves and their families and further exploit the poor instead of serving them. My point of departure for this study of a rural community depicted in Ngugi wa Thiong'O's novel, *Petals of Blood* (1977). The focus is on members of the impoverished and socio-economically disadvantaged community who are distressed by incessant drought and who consult a seer and offer sacrifices to seek solutions. I use this as a point of departure to explore how the text gestures at the potential of Indigenous Knowledge Systems (IKS) to address the real dilemmas faced by Africans following the extensive and cross-generational crises that accompany coloniality. I provide an ecocritical reading of the text, drawing on relevant postcolonial / decolonial ideas to illustrate the ways in which indigenous African epistemologies can indeed boost efforts at environmental conservation and poverty alleviation in rural communities today.*

**Keywords:** *Indigenous Knowledge Systems (IKS), Africa, Ngugi, *Petals of Blood**

### **Introduction**

It would be remiss of me to examine the ecological crisis that Africa faces today and venture to finding solutions without first synopsisizing colonialism and its violence towards the African people and their environment, which subsequently precipitates this crisis. The African perspective of the environment differs considerably from the western view. While Africans share a deep, sacred and symbiotic relationship with their environment in the form of mutualism, honoring it through sacrifice and ritual, and caring for it as it provides for them, the environment being an important part of their culture, a way of life “fashioned

by people in their collective endeavour to live and come to terms with their total environment. It is the sum of their art, their sciences and all their social institutions, including their system of beliefs and rituals” (Ngugi, 1970:4), all these values, principles and tenets imbued in their identity.

On the other hand, westerners see the environment as purely meant for human use and exploitation to achieve desired gains. And so, the western colonizers arrive in the African shores with this ideology, comprehending the rich environment and disregarding man who exists harmoniously alongside it because of the persisting western notion that often characterizes:

non-European peoples and lands as “uncivilized, animalistic” and primitive (Plumwood, 2003, p. 52). This anthropocentric and Eurocentric worldview justified colonialism by framing non-European lands as empty and exploitable.

Consequently, colonial narratives have propagated reductive images of non-Western cultures to assert European supremacy, a phenomenon described by Bhabha (1994) as being laden with stereotypes that devalue both the people and their environments. (Adugna & Hailu, 2024, p. 1)

Because they deemed African lands as ‘empty and exploitable’, they began their so-called civilizing missions by conquering natives, appropriating their lands, and using them as manpower to plant cash crops that would yield profit and make them wealthy. They cleared forests, planted cash crops, built railways to transport natural minerals they mined from the lands, built roads, industrialized the environment that native Africans held sacred. And, consequently, their insatiable greed, expansionist and capitalist traditions plunged the natives to extreme poverty and beggary.

Postcolonial studies tend to focus on cultural, political, economic effects of colonialism, and exclude the environment which has no lesser fell victim to colonialism and imperialism. Therefore, in my analysis I offer ecocritical lens of the postcolonial situation in Africa, drawing from ecocriticism which “examines how literature shapes societal perceptions of the environment and the depiction of human nature interactions (Love, 2003). It advocates for the rights and welfare of nonhuman entities, challenging the entrenched assumption of human superiority” (Adugna & Hailu, 2014, p. 4). Although, ecocriticism has, in the past, been predominantly used in Europe and the Americas, it has since seen its growth expand to other geographical spaces to “encompass a diverse array of natural and built environments significant to writers of various ethnic, national, racial, and gender backgrounds” (2014, p. 4). If we situate ecocriticism in the African context, it becomes pivotal that we consider the postcolonial situation, basing our arguments on the effects of colonialism and globalization on this human-nature relationship, as Ashenafi Belay Adugna and Tesfaye Gebremariam Hailu (2014) further iterate that “for ecocriticism to hold relevance in African contexts, it must center on local concerns, particularly the relationship between social life and the natural environment” (4). Following the same train of thought, I aim to invigorate this segment of the postcolonial discourse in order to offer the means of achieving environmental and social justice through Ngugi’s *Petals of Blood*, with reference to IKSs as probable means of achieving this justice. According to Ladislaus M. Semali and Joe L. Kincheloe (2002):

Indigenous  
knowledge reflects the

dynamic way in which the residents of an area have come to understand themselves in relationship to their natural environment and how they organize that folk knowledge of flora and fauna, cultural beliefs, and history to enhance their lives. (p. 3)

Mogomme Alpheus Masoga and Allucia Lulu Shokane (2019) cite Masoga (2017) who emphasizes that “IKS emanate from the human spirit and life experiences organised and ordered into accumulated knowledge with the objective of utilising it for quality of life and to create a liveable environment for both human and other forms of life” (2019, p. 3). They further argue that IKSs are observed as “interrelated to the continued existence of communities in general or specific fields, such as in the protection and use of the local environment and enhancing food security (Masoga, 2017).” (2019, p. 1)

Ngugi wa Thiong’ O is one of the leading African literary giants whose work seeks to reclaim African identities, cultures and values, and redress the depictions of Africa and the African portrayed in colonial writings and art. An epitome of his prowess in doing so is one of his most famous essay collection titled *Decolonising the Mind* (1986). In 1977, Ngugi was imprisoned for his political activism in his writing of his play *I Will Marry When I Want* written in his home language, Gikuyu, as it criticized the post-colonial Kenyan government/elite for the country’s inequalities. Similarly, in *Petals of Blood* Ngugi offers a daring critique of the legacies of colonialism that manifest through the devastation of the lands of Ilmorog and the destitution that the characters are confronted with and

exposes the elite as postcolonial tools of oppression that continue to persecute and illtreat the poor masses in Kenya. This persecution is depicted through their schemes of plundering the peoples’ lands and natural resources for their own use and wealth inflation. While Cecilia Addei, Cythia Osei and Felicia Annin describe *Petals of Blood* as a “dramatization and condemnation of the ruthless capitalist exploitation of the masses by those in privileged positions in independent and free Kenya” (2013, p. 164). Adugna and Hailu argue that *Petals of Blood*, alongside Chinua Achebe’s *Things Fall Apart* “serve as counter-narratives to colonial environmental discourse, advocating for the recognition of non-Western perspectives on ecological justice and the reclamation of indigenous environmental identities” (2024, p. 6). In addition, Adugna and Hailu also claim that in *Petals of Blood* “Ngugi critiques neocolonial exploitation of Kenya’s natural resources by multinational corporations, spotlighting the voices of marginalized communities advocating for environmental justice” (2024, p. 6).

The paper seeks to find ways in which the environmental degradation engendered by western capitalist and expansionist avarice can be mitigated using IKS. The overarching question that anchors this study being: How can IKS be of use in alleviating poverty, socio-economic disadvantages, droughts and scarcity in rural communities? This paper then uses Ngugi’s text and Ghanaian case studies to emphasize that this is an issue that affects the whole continent, rather than Kenya as a country within the African continent. For this study, I adopt a qualitative research design, with a focus on narrative analysis as data collection is conducted through critical textual reading of wa Thiong’o’s *Petals of Blood*. I employ Stephen Greenblatt’s New Historicism, which takes into account:

...both the contextual circumstances that lie at the basis of a work of art (circumstances that have produced it and for which, in time, it has come to stand) and its autonomy as a formal, aesthetic structure; it needs to keep an eye both on the singularity of a work of art (on what it is in and of itself) and on the way(s) in which it serves as an illustration of something that lies outside it. (Jürgen Pieters, 2002, p. 37)

Because *Petals of Blood* isn't just a work of art but also an allegory of real-life conditions in rural Kenya and other former colonies in Africa, this study bridges between the literary presentations of the effects of droughts in Ilmorog and means of mitigating these effect in real life Kenya and Ghana. This will also reveal how *Petals of Blood* hints at the potential of leveraging IKS to deal with the issue of climate.

### **Ecological Crisis in Ngugi's *Petals of Blood***

In *Petals of Blood*, we are introduced to a struggling rural community of Ilmorog that is scourged by drought. The elderly remain in Ilmorog while the youth migrate to towns and cities to seek greener pastures through work since the land has failed to sustain their lives, and Njuguna's youngest son's complaint is an exemplary instance in which we can relate this pain as he affirms:

I have worked on this land for a year. My nails are broken. But look at the yield. It mocks the strength in

these arms. Tell me father, when the tax gatherer comes round, what shall I give him? When I go to Ruwaini and I see nice clothes, where shall I get the coins to give the shopkeeper? I must go to the big city and try my future there: like my other brothers. (*PoB*, p. 97)

The land can no longer yield as much produce and livestock is dying as the grass in the grazing fields dries, and the imposing tax gatherer further oppresses the community of Ilmorog. As established that in *Petals of Blood*, the characters are laden with angst as their livestock perishes due to scanty grazing pastures. Daniel W. Muthee et al. (2019) then advocate for indigenous breeds of livestock arguing that they are drought resistant and that "in most parts of Kenya indigenous breed have proved to be more sustainable leading into more research into indigenous breeds of cattle, sheep, goats, and chicken" (p. 26). This becomes a plausible solution for the pastoral scene of Ilmorog and eases the stress that the characters are faced with. Although we are presented with this predicament, there are elderly people such as Nyakinyua and Njuguna who know the verdant Ilmorog and the struggles it has faced leading up to the present. The narrator relates the conversation among peasant farmers in Abdulla's shop:

And why did the colonial settler and his policeman capture the youth? To cultivate his fields and also to look after the cows. The foreigner from Europe was cunning: he took their land, their sweat and their wealth and told them that the

coins he had brought,  
which could not be  
eaten, were the true  
wealth! (*PoB*, p. 34)

In this extract, it becomes clear that the induction of the disruption of their pastoral lives and successive plights began with the arrival of the Europeans, who had colonial and imperialist schemes up their sleeves. They appropriated their land and used their labour to cultivate their opulence. Chakravarty et al. (2012) attest to this exploitation of the forest and resources by asserting that:

Erstwhile colonies of the colonial powers like Britain, France, Spain or Portugal are now the Third World Countries or the developing nations mostly have the tropical rainforests except Australia and Hawaii were exploited for their natural resources and their indigenous people's rights destroyed by the colonial powers. All these countries have indigenous populations who had their own system of land management and/or ownership in place for thousands of years before the intervention of colonists from rich industrialized nations. Colonialism turned previously self-sufficient economies into zones of agriculture export production. This

process continues even today in different form of exploitation and the situation is worsening (Colchester and Lohmann, 1993). (p. 11)

These colonial powers mentioned in this extract are a major cause of the environmental crisis that many countries face today, including Ngugi's postcolonial

Kenya in *Petals of Blood*, and the effects of deforestation are perceptible in the text, and truly this blight continues even after these colonial powers have abandoned their colonies, as Ngugi notes. The exploitation of the people by the government or the elite is also observed by Addei, Osei, and Annin as they opine that, "Ngugi uses the deeds and misdeeds of the privileged few to chronicle the injustices of those in authority" (2013, p. 165). And these injustices are portrayed in the texts through deforestation, expropriation of land, and overmining of minerals, as well as their implications for the poor majorities of Kenya. Chakravarty et al. (2012) further contend that:

Deforestation disrupts normal weather patterns creating hotter and drier weather thus increasing drought and desertification, crop failures, melting of the polar ice caps, coastal flooding and displacement of major vegetation regimes. In the dry forest zones, land degradation has become an increasingly serious problem resulting in extreme cases in desertification (Dregne, 1983).

Desertification is the consequence of extremes in climatic variation and unsustainable land use practices including overcutting of forest cover (Anon., 1994b). (p. 15)

The effects of deforestation on the climate and environment mentioned in this extract indubitably justify Ngugi's argument that the destruction of forests is the seed of land degradation, barren soil, drought and so on, leading to desertification. Therefore, Ngugi's lamentation through both his fictional characters and environment in *Petals of Blood* is well founded and deserves its acclaim.

The community is distraught over this drought as harvest after harvest they get less and less produce, and Nyakinyua exclaims that, "Our soil seems tired. It did not receive enough water to quench its thirst. Long ago land the size of this piece could yield eight to ten containers each the size of this sack here" (*PoB*, p. 69). This reference or rather a comparison of the fertile past and the drought-stricken present is an outcry of the environmental injustice that has been perpetrated by capitalist ideas by introducing alien plants and crops on the Kenyan soil and the clearing of the forest to make way for roads, and railways to transport coal and natural resources that has drained all the nutrients in the soil. As the community runs out of sustainable strategies that could help them, Karega resorts to the idea of marching to the city of Ruwa-ini where their MP, Ndemi wa Riera is based in order to ask for assistance he had promised during his electoral campaigns. Nyakinyua firmly posits that:

There was a time when things happened the way we in Ilmorog wanted them to

happen. We had power over the movement of our limbs. We made up our own words and sang them and we danced to them. But there came a time when this power was taken from us. We danced yes, but somebody else called out the words and the song. First the Wazungu. They would send trains here from out there. They ate our forests. What did they give us in return? Then they sent for our young men. They went on swallowing our youth. Ours is only to bear in order for the city to take. In the war against Wazungu we gave our share of blood. A sacrifice.

Why? Because we wanted to be able to sing our song, and dance our words in fullness of head and stomach. But what happened? They have continued to entice our youth away. What do they send us in return? Except for these two teachers here, the others would come and go. Then they send us messengers who demand twelve shillings and fifty cents for what? They

send others with strange objects and they tell us that they are measuring a big road. Where is the road? They send us others who come every now and then to take taxes: others to buy our produce except when there is drought and famine. The MP also came once and made us give two shillings each for Harambee water. Have we seen him since? Aca! That is why Ilmorog must now go there and see this Ndamathia that only takes but never gives back. We must surround the city and demand back our share. We must sing our tune and dance to it. Those out there can also, for a change, dance to the actions and words of us that sweat, of us that feel the pain of bearing . . . But Ilmorog must go as one voice.' (*PoB*, p. 129-130)

Through Nyakinyua's powerful revolutionary speech, Ngugi artistically laments the loss of power and control of Kenyan people over their own lives, and cultural identities at the hands of European colonizers and postcolonial elites by using the song and dance analogy, predicating

that the Kenyan masses are now dancing to the tune of these powerful minorities. Nyakinyua goes on to claim that the first people to take this power away from the were the Wazungu, particularly the British colonizer, who came with trains to clear away the forests. She also lambasts that they are required to produce in order to grow the cities' economies while their own basic means of life wither away and how this plight persists with post-independence Kenyan government and elites holding the reins. This exploitation is carried on through the collection of taxes from the Ilmorog populace, and the promised development is not carried out. Instead, more plight succeeds this journey, as it attracts the attentions of Kenyan elite and industrialists such as Chui, Mzigo, Kimeria, and Nderi. These elites claim to develop and industrialize Ilmorog for the benefit of the masses, but they only do so for themselves, and use and deceive the locals, blunting their long-awaited success. With this notion, Chijioke Uwasomba (2006) opines that when abandoning their colonies, the colonizer left the reins to post-independence leaders to:

Sustain and promote their interests to the disadvantage of Africa, the international hegemonic have ensured that their agents remain in power to do their biddings. These agents consider and pursue policies that satisfy their interests and those of their imperialist masters even at the brink of economic collapse. (p. 95)

This is evident in the elite's rapacious

quest for wealth at the expense of Ilmorog's poor masses, plunging them further to destitution and helplessness while they wallow and rejoice in their opulence as the former colonizers did. Similarly, Adugna and Hailu cite Trisha (2024) who "critiques the neocolonial government policies in *Petals of Blood*, illustrating how such policies foster continued exploitation of natural resources, thereby exacerbating environmental and social inequities" (p. 3). Uwasomba (2006) further adds that:

The interplay between the external threat and the internal collaborators is considered the greatest problem in Africa today, and the effort towards the liberation of Africa from the claws and shackles of imperialism and capitalism that provokes the revolutionary undertone in Ngugi's works as the only a radical break from the status quo demanding a profound transformation of the private property system, access to power of the exploited class, and a social revolution that would break dependence and thus allow for social change. (p. 97)

As a creative mouthpiece, Ngugi expresses his socialist stance in his work to call for a revolution to overthrow these mimetic colonial powers that persistently oppress the marginalized populations to enrich themselves and former masters, and not just in Kenya but in all former colonies that follow this pattern of exploitation. In the same trajectory, Adugna and Hailu also claim that in *Petals of Blood*, "Ngugi critiques neocolonial exploitation of Kenya's natural resources by multinational corporations, spotlighting the voices of marginalized communities advocating for environmental justice" (2024, p. 6). Rivarthy Sivasubramaniam (2019), however, argues that:

While Ngugi acknowledges the need for Africa to modernize in order to benefit from mankind's achievements, he wants modernization to not take a toll on humanity and the environment. He, thus, calls for the creation of a hybrid space that facilitates sustainable development. For this, in his opinion, Africa would need to walk the path of modernization guided by the values enshrined in its history and reflected in its culture. (p. 8)

In Sivasubramaniam's view, Ngugi

does not debunk the idea of modernizing Africa, but only advises that this modernization considers the history and values imprinted in the African culture, such as I can think of the concept of Ubuntu, which considers kindness towards others and principles of socialism as its core values.

As I earlier mentioned that as opposed to western perspective, where the environment is meant to be subdued and exploited, in African ideology it holds more value and is regarded as a participating entity in the cycle of natural life and is accorded respect. This is strikingly shown in the Ngugi's texts when the Ilmorogians are discussing means to ameliorate their hunger and restore the soil to its former yielding glory, Karega offers a dialogic solution, propounding that "magic is in our hands. Tomorrow when it rains: we should be asking the soil: what food, what offering does it need so that it will yield more?" (*PoB*, p. 128). This attribution of the human ability to talk and hold a conversation shows us that they believe it is not an inanimate entity, and that this system of reciprocation of kindness is necessary for both parties' survival and wellbeing. They believe that if it is cared for, it will yield sustainable produce, and they believe that this period of drought can be credited to the disrespect and degradation it has endured at hands of the colonizers and postcolonial leaders who have no respect for it and only want to make profit of it. This amount of respect is also shown when the Njuguna claims they had gone to consult with Mwathi wa Mugo, Ilmorog's diviner, on what they should do to ease the drought so

that they can get sizable harvests as before and that their livestock ceases dying, he relays that Mwathi wa Mugo had said that:

We send this donkey away. We sacrifice a goat. Nobody has the mouth to throw words back at Mwathi. You know he is the stick and the shade that God uses to defend our land. You know that since that fight for Ilmorog a long time ago we have not had many plagues in our midst. Nobody can throw words back at him. So we did not ask him how! He did not tell us how. He knows we are not children. If it was a goat we would beat it and then send it away and ask it to pass the plague to others. This animal is not a goat. But we are using it for the same illness: I say we shall beat it and when it is about to die we shall send it away into the plains to carry this plague away." (*PoB*, p. 128)

This passage is not only a tribute to the environment, but it is also an admirable depiction of their way of life, a cultural system that is put in place to expunge disruption or any

kind of disorder and restore balance in their lives. This is the IKS that has been disregarded by western sciences, it is ritualistic and a lived experience that unites the community and restore harmony. Dennis Michael Warren (1991) maintains that IKS “is the basis for local-level decision-making in agriculture, health care, food preparation, education, natural-resource management, and a host of other activities in rural communities” (p. 1). This strategy to offer a sacrifice to God as the creator and overseer of the cycle of nature, is a sign of commendable respect and a testament of their devotion and reverence for their respective cultural identity. But it is also a practice of IKS because characters like Nyakinyua have lived these experiences, and this knowledge of rain-making sacrifices have been passed on from generation to generation through storytelling. This deep reverence for their culture is further substantiated when Abdulla’s donkey had been killed by the plane crash, and the younger citizens believed that it was their journey to the city that had placated God’s wrath and brought forth the rain to Ilmorog, but the elderly differed in their conviction:

Even the rain that fell a month after all the charitable individuals and organizations had packed their bags and returned to the city was, later for Munira, the way God chose to reveal himself in all his thunderous and flaming glory. It was

this way of showing that men’s efforts could only come to nought and could never influence God’s will. Only total surrender . . . But for Nyakinyua, Njuguna, Njogu, Ruoro, and the others who knew about Mwathi’s powers, the rain had clearly been God’s response to the sacrifice and it signalled the end of a year of drought. (*PoB*, p. 204)

It is evident in this extract that the Ilmorog elders believed it was Mwathi wa Mugo’s divine prophesy of offering the sacrifice in order to pacify God’s fury upon them and that God had finally heeded their plea, rather than the visit to the MP’s office to ask for assistance, as they were convinced that men have no control over the weather. Through consultations with a diviner and the sacrifice of Abdulla’s donkey, Ngugi seems to suggest that there is a potential to consult IKSs to mitigate the sufferings of the Ilmorogians.

### **Indigenous Knowledge Systems (IKS) as a means to circumvent the effects of drought on the people’s wellbeing**

It is important to acknowledge that in precolonial times Africa had its own culturebound systems of knowledge that were designed to maintain stability, wellbeing and foster growth in those respective communities. Although, I mention that these systems

were related to cultures of certain African communities, it is not my aim to delve or explore all indigenous systems of knowledge other than those that fall within the confines of my study, which are indigenous knowledge systems that alleviate the effects of drought such as food insecurity. Emmanuel Kanchebe Derbile (2013) cites Nuffic and UNESCO's (1999) description that Indigenous Knowledge (IK) refers to:

The unique, traditional, local knowledge existing within and developed around the specific conditions of people indigenous to a particular geographic area. They stress that IK is embedded in the community and is unique to a given culture, location or society. (p. 75)

He further postulates that these knowledge systems are preserved and passed to younger generations through oral tradition and experiment, and they often borrow from other cultures or outside communities as a form of knowledge and skill accumulation. And that since IK is closely related to survival and subsistence, "it is said to provide a suitable basis for local-level decision-making on issues relating to food security and natural resource management (Nuffic and UNESCO, 1999, pp. 1011)" (Derbile, 2013, p. 75). In their study of indigenous knowledge in Kenyan agriculture, Muthee et al. (2019) posit that:

...application of

indigenous knowledge can help to scale up sustainable agricultural intensification in order to increase production, for environmental protection and poverty reduction. Paying attention to local or indigenous knowledge can enhance the farming practices and help adapt to climate changes and variability by smallholder farmers in Kenya, considering that farmers capacity to cope with and adapt to the change in climate is dependent on the wider social and institutional context they live in. (p. 24)

As depicted in Ngugi's novel, climate appears to be at the forefront of the environmental degradation in Kenya. The root cause of this is the intense droughts, which we have identified as being remnants of colonial exploitation, as pointed out by Chakravarty et al. earlier on. Scholar's like Muthee et al. and many others have researched about the importance of indigenous knowledges, and the urgent need of their implementation in order to reduce social issues like poverty. This is not to say that Kenya is the only country facing this problem

of drought and food insecurity, take northeastern Ghana for example and how they use IKS to quell these issues as Derbile (2013) predicates that:

In Yua, a rural community in the Atankwidi basin, farmers expressed their perception of drought risk in the local parlance as *war ka saa* "geni tiha. Although this literally means "drought does not destroy the land", it is interpreted to mean that "drought does not necessarily lead to hunger". This expression reflects local farmers understanding of drought risk in rain fed agriculture but also their ability to minimize drought risks in the Atankwidi basin. Thus, farmers are aware of their vulnerability to drought in rain fed agriculture. They express concern about its adverse impact on yields. Nonetheless, they are responding with their own IKS to sustain rain fed agriculture, particularly food crop farming as a primary livelihood under such climatic

variability. (p. 71-72)

It is perceptible that although the said community is very much aware of the effects of drought on the land and crop yield and its vulnerability, it relies on its ability to minimize drought risks using various IKS as measures put in place to ensure survival and circumvent poverty amidst droughts. It is very crucial for communities like Yua, that depend on crop farming as a means of primary livelihood to engineer ways that will ensure food conservation during times of drought, especially since most of rural dwellers are people "who depend on rain-fed agriculture and livestock Keeping" (Speranza et al., 2010, p. 300).

These knowledge systems are helpful in avoiding damaging losses and prevent poverty within these communities. If we are to probe into the vulnerability engendered by drought, Derbile cites Chambers who explains this vulnerability as having two sides:

It comprises an external side which refers to the risks, shocks and stress to which an individual or household is subject arising from exposure to a hazard, in this case drought. The second side is the internal side, dependent on adaptive capacity and comprising a state of defencelessness, meaning the lack of means to cope

without damaging loss, which could lead to economic impoverishment, social dependence, humiliation or psychological harm. (2013, p. 75)

Derbile postulates the extent to which a household can suffer without viable means to curb the effects when faced with droughts, economic impoverishment could lead to the affected families or individuals relying on social assistance such as government food parcels for survival which could cause humiliation and psychological harm. Therefore, it is important for indigenous people to have these knowledge systems at their disposal, and Muthee et al. (2019) highlights a solution to these issues that has been used by Kenyan people such as the farm:

...is organized in such a way that it contributes to improved productivity by refurbishing the soil fertility, ensuring water retention through reduced runoff, stabilizing global warming and encouraging climate-smart agriculture through the planting of drought-resistant trees that subsequently produce fodder, fruits, nuts, edible oils, fuel firewood, and timber. Agroforestry has also been successfully used in encouraging reforestation and easing pressure on forests by providing alternative farm-produced fuelwood

thus controlling imminence of desertification. (p. 25)

Agroforestry is a perfect solution for areas that have been affected by deforestation due to felling of forests for various industrial uses as shown in *Petals of Blood*. Ilmorog citizens could plant trees that are drought resistant as they provide the soil with necessary nutrients. These nutrients help restore soil fertility and retain rainwater in the soil so that they would be able to plant food crops. As noted in the excerpt that agroforestry encourages reforestation, therefore this could help restore the environment to its former verdant days that Nyakinyua relates in the story. Reforestation also helps with climate-related challenges that reduce the productivity of the land

Other methods that are used by farmers when intending to avoid food insecurity include planting indigenous crops that can withstand or resist drought for longer periods of time and still be able to yield enough produce to sustain their families. Derbile conducts interviews with several locals in the form of focus group discussion where they claim that:

We inherited the cultivation of *Naara* and *Zea* from our parents just as they inherited the seed from our grandparents.

Traditionally, this is what we mill into flour for preparing meals and for making offerings to our gods. We continue to cultivate *Naara* and *Zea* because they are drought resilient with capability of surviving droughts that last a few weeks or even a

month. Although drought can still affect yields, they are resilient enough to prevent total crop failure and this is important for sustaining our lives when droughts occur. New crop varieties may be high yielding but they also easily fail when prolonged droughts occur. This will spell doom for us. Due to the drought resilience of *Naara* and *Zea*, the occurrence of drought does not necessarily lead to hunger among households in our community. (2013, p. 80)

Having cultivated these agricultural methods to prevent hunger during drought seasons shows that these knowledge systems are not new but they are long established means of survival and have been passed down for generations to maintain that order. Muthee et al. agree with the notion of indigenous crop farming in Kenya, as they suggest vegetables such as “black nightshade, amaranth, cowpeas, pumpkin leaves, black nightshade, Sunnhemp, Jute plant, pigweed, cowpeas, African eggplant and Spider Plant also known as “African Cabbage”” (2019, p. 26). They further claim that these African vegetables have the advantage of improving soil fertility and weeds and pest suppression. They also encourage the use of organic manures for fertilizing soil than inorganic fertilizers, which can be very beneficial, especially for subsistent farmers whose livelihood depends on crop yield for consumption. However, the act of making offering to their gods itself depicts this reverence of nature that Ngugi

demonstrates which is an enduring feature in the African way of life. They believe that nature is a participating entity in the cycle of life, so they make these offerings in order to persevere through droughts and to save their lives. So, they plant these indigenous crops that are drought resistant because they have been taught by their forebears how they can prevent mitigate hunger through these seasons.

### Conclusion

Ngugi has shown us the predicament that drought engenders within African agricultural communities, and drawing from this upheaval some authors have explained how local communities with decades of experience mitigate this disruption brought about by drought. The proposed IKSs are productive and show that had the Ilmorogians had such knowledge they would have had solutions to their drought issues and food security without having to rely to their government and MP who ends up exploiting them, appropriating their lands for industrialization thus propelling them further to a state of penury and helplessness as industrialization does not favour these agro-pastoralists. As I have aforementioned that these knowledge systems are unique to culture and communities and can be borrowed as well for knowledge and skill accumulation, it is important to look to outside communities as well. The scope of this study is narrowed to three countries, Ngugi's Kenya which suffers the drought crisis and is thrust into poverty and scarcity, and real Kenya and Ghana which perseveres amidst this same crisis. Although the scope is narrowed, these solutions are plausible and should be applied to other communities as well to curb various social issues, including food insecurity.

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