



UNIVERSITY OF DAR ES SALAAM
COLLEGE OF SOCIAL SCIENCES
(CoSS)

International Symposium

on African Voices on Conservation in Africa



Theme

**Reclaiming Narrative, Agency, and Resources
in African Environmental Stewardship**

BOOK OF ABSTRACTS



Dates:

26th - 27th March, 2026



Host:

Mwalimu Julius Nyerere Campus,
University of Dar es Salaam
Tanzania



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College of Social Sciences

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Table of Contents

Introduction.....	1
Transformational Changes in Biodiversity Conservation.....	4
<i>Mathew Mabele and Wilhelm Kiwango, University of Dodoma, Tanzania</i>	<i>4</i>
<i>Ida Djenontin, Gasto – Lyakurwa, Mercy Chepkwony, Penn State University, USA.....</i>	<i>4</i>
<i>Ariadne Collins, University of St. Andrews, Scotland.....</i>	<i>4</i>
<i>Aby Harper, Clemson University, USA</i>	<i>4</i>
<i>June Rubis, Building Indigenous Initiatives in Heritage and Macquarie University, Australia</i>	<i>4</i>
<i>Laila Sandroni, University of Brasilia, Brazil</i>	<i>4</i>
Reclaiming the African Voice in Conservation through Afro-Positive Tourism: Experiences from Uganda.....	5
<i>Ayorekire Jim, Obua Joseph, Mugizi Francis and Byaruhanga Bruce Michael.....</i>	<i>5</i>
<i>Department of Tourism, Makerere University.....</i>	<i>5</i>
Contested Landscapes: Land, Livelihoods, and Conservation in the Ngorongoro Conservation Area, ca. 1950s-2000s.....	6
<i>Maxmillian J. Chuhila and Thobias Eginah, Department of History, University of Dar es Salaam</i>	<i>6</i>
Does Participation Matter? Examining What Drives Community Participation in Wildlife Management Areas (WMAs).....	7
<i>Maria E.S. Mngulwi, Department of Tourism and Recreation, Sokoine University of Agriculture.....</i>	<i>7</i>
<i>Gerald Eilu and Jim Ayorekire, Department of Forestry, Biodiversity and Tourism, Makerere University.....</i>	<i>7</i>
African Environmentalism: How financialization cripples people science of soil and water in Africa	8
<i>Christine Noe, Department of Geography, University of Dar es Salaam...8</i>	
<i>Ng’winamila Kasongi, Department of Geography, University of Dodoma</i>	<i>8</i>

Mapping wildlife Diplomacy between Tanzania and Kenya: Prospects and Challenges, 1950s-2024	10
<i>James B. Kuboja, James Zotto and Rabia Kurunge, Department of History, University of Dar es Salaam</i>	<i>10</i>
Contested Landscapes: Narratives of Territorialization in Transfrontier Conservation Parks in Southern Africa	11
<i>Lameck Kachena, University of Cape Town, South Africa</i>	<i>11</i>
Limitations of Community-Driven Wildlife Conservation for Conflict Prevention at Loliondo GCA, Tanzania	12
<i>Ruth John, Open University of Tanzania</i>	<i>12</i>
Harnessing Natural Resources and Institutional Quality for Sustainable Financial Development in East Africa: Insights from Geographic, Macroeconomic, and ICT Factors	13
<i>Getachew K. Hailu, Department of Economics, Jimma University, Woldia University, Addis Ababa, Ethiopia</i>	<i>13</i>
<i>Wondaferahu M. Demissie, Department of Economics, Ethiopian Civil Service University, Addis Ababa, Ethiopia.....</i>	<i>13</i>
<i>Etana A. Fekede, Department of Economics, Adama Science and Technology University, Addis Ababa, Ethiopia.....</i>	<i>13</i>
The Blessings of Kilimanjaro: Perspectives of Tanzanian Mountain Crews.....	14
<i>Kokel Melubo, College of African Wildlife Management, Mweka, Tanzania</i>	<i>14</i>
<i>Leslie Hadfield, Brigham Young University, Provo, USA</i>	<i>14</i>
<i>Festo Mkenda, Roman archives of the Society of Jesus (the Jesuits), Rome, Italy</i>	<i>14</i>
Reclaiming Dupoto e Ramat: Indigenous Sovereignty and the Political Ecology of the Maasai Land.....	15
<i>Saruni Kisiaya, University of Dar es Salaam</i>	<i>15</i>
Integrative Conservation and Management Approaches in Wetlands support the mutual health and survival of amphibians and aquatic insects.	16
<i>Anthony Karani, Andrew Gichira, Centre for Ecosystem Restoration,</i>	

<i>Kenya</i>	16
<i>Patrick Malonza, National Museums of Kenya</i>	16
<i>Anne Kairu, Michael Githaiga, University of Embu, Kenya</i>	16
Is the operation of the Citizen Science Initiatives in Forest Conservation and Local Community leading to Empowerment?	17
<i>Michael Rikanga, Suma Kibonde, Victoria Makulilo, University of Dar es Salaam, Tanzania</i>	17
<i>Ida Theilade, University of Copenhagen, Denmark</i>	17
Silencing Indigenous Voices in the Farming and Conservation of the Angar-Didessa Valley, Western Ethiopia (1975-2018)	18
<i>Dereje Hineu Dehu, Wollega University</i>	18
Citizen Science Beyond Data Production: Insights on How Citizens Use Their Own Data for Forest Governance in Tanzania	19
<i>Daudi Edward Daudi, Suma Kibonde, Victoria Makulilo, University of Dar es Salaam, Tanzania</i>	19
<i>Mikkel Funder, Danish Institute for International Studies, Denmark</i>	19
Deconstructing Digital Divides: Ensuring Equitable Access and Empowering Marginalized Voices in African Forest Governance	20
<i>Bernard Nyamandege, University of Dodoma, Tanzania</i>	20
<i>Hilda Mwakangala, Iben Nathan, University of Copenhagen, Denmark</i>	20
Renaturalising Socio-nature Coexistence: A Decolonial Political Ecology of Forest Conservation and Pastoralism in Tanzania	21
<i>Edith Benedict, Benezet Rwelengera, Sokoine University of Agriculture/ University of Dar es Salaam/University of Copenhagen</i>	21
<i>Raymond Okick, Sokoine University of Agriculture, University of Copenhagen</i>	21
<i>Thorsten Treue, Jens Lund, Henrik Meilby, University of Copenhagen</i> ...	21
<i>Parit Saruni, Mwalimu Nyerere Memorial Academy</i>	21
<i>Jumanne Abdallah, Rose Kicheleri Romanus Ishengoma, Sokoine University Agriculture</i>	21

Active Resource Use, the Key to Restoring African Tree Systems	22
<i>Coert J. Geldenhuys, Department of Plant and Soil Sciences, University of Pretoria, South Africa.....</i>	
Indigenous Eco-politics: From Decolonising to Liberating Conservation in Africa.....	22
<i>Emmanuel Sulle, Climate and Environmental Research Centre, Aga Khan University in Tanzania</i>	
Ritual Uses and Sustainable Practices: Sacred Forests as Living Science of Conservation in the Grassfields of Cameroon.....	23
<i>Lucie Mbogni Nankeng, University of Dschang, Cameroon</i>	
Whose Land, Whose Future? Maasai’s Livelihood Security and the Conservation-Climate Nexus in Ngorongoro	24
<i>Richard Mbunda, University of Dar es Salaam</i>	
Macrofauna-environment interactions and their potential in restoring degraded landscapes in the context of Sub-Saharan Africa: A review of current knowledge	26
<i>Mukanzala Kasimbo, Todd Johnson, Agnes Uwimbabazi, Copperbelt University, Zambia</i>	
<i>Stephen Syampungani, University of Pretoria, South Africa</i>	
<i>Theodore M. Mwamba University of Lubumbashi, Democratic Republic of Congo/ Copperbelt University, Zambia</i>	
Forms and Sources of Structural Bias in African Conservation Science.....	27
<i>Dan Brockington, Universitat Autònoma de Barcelona, Spain</i>	
Indigenous Marine Knowledges in the Ocean Anthropocene: Towards Epistemic Justice in African Coastal Futures.....	28
<i>Saruni Kisiaya, University of Dar es Salaam</i>	
Unpacking Green Developmentalism: A Critical Examination of REDD+ and Clean Cooking Initiatives in Ghana, Tanzania, and Zambia	29
<i>Omary Thabiti, University of Dar es Salaam, Tanzania.....</i>	
<i>Godfred Obeng, University of Jyvaskyla, Finland.....</i>	
<i>Matildah Kaliba, Department of development Studies, University of Zambia.....</i>	

Situating Local Knowledge in the Climate Crisis:	
Exploring organic cocoa farming in Ghana	30
<i>Godfrey Adduow Obeng, University of Jyväskylä, Finland</i>	<i>30</i>
Decolonizing Drought and Conservation Monitoring:	
An African-Led Stewardship App for Tanzania’s Drylands.....	31
<i>Upendo Lyimo, Institute of Resource Assessment, University of Dar es Salaam</i>	<i>31</i>
Ecological Distribution, Diversity and Regeneration Status of Dracaena Ombet in Afromontane Dry Forest of northern Ethiopia	32
<i>Abrhan Gebre, Makelle University, Ethiopia.....</i>	<i>32</i>
People, Policies and Politics of Conservation in the East African Community	33
<i>Alice Nyawira Karuri, Strathmore University, Kenya</i>	<i>33</i>
From Coexistence to Conflict: Militarized Conservation, Maasai Displacement, and the Crisis of Multiple Land Use in Ngorongoro	33
<i>Regnald Ndesanjo, James Kuboja and Jakob Sululu, University of Dar es Salaam</i>	<i>33</i>
The Coloniality of Forestry: Decolonial Possibilities and African Environmental Ethics	34
<i>Mathew Bhuki Mabele, Department of Geography and Environmental Studies, University of Dodoma, Tanzania</i>	<i>34</i>
<i>Danstan Mukono, Department of Sociology and Anthropology, University of Dar es Salaam, Tanzania.....</i>	<i>34</i>
From Rhetoric to Reality: Forging a Sovereign and Inclusive Conservation Agenda for Africa	35
<i>Olusola O. Ogunjinmi, Adenike M. Durojaiye and Emmanuel Alayande, University of Education, Nigeria</i>	<i>35</i>
African Cultural Practices and Environmental Management in Democratic Nigeria	36
<i>Muideen Akanni, University of Ibadan, Nigeria</i>	<i>36</i>

The Trophy that Never Fed the Village: Unmasking the Myth of Community Benefits in Trophy Hunting.....	37
<i>Ritha Kalokola, Institute of Resource Assessment, University of Dar es Salaam</i>	<i>37</i>
Conservation at a Crossroad: Balancing Global Environmental Agendas with Local Rights in Nigeria.....	38
<i>Aminulahi Ashiru, University of Ibadan, Nigeria</i>	<i>38</i>
<i>Kamil Adeyemi Hamzah, Emmanuel Alayande, University of Education, Nigeria</i>	<i>38</i>
Held in Reserve, Continuing in Care: Maasai Reserves of Renewal and Conservation Justice Struggles	39
<i>Jim Igoe, Department of Anthropology, University of Virginia</i>	<i>39</i>
Land Right, Livestock, and Living as Ancestors: The Foundation of African Environmental Futures.....	41
<i>Saitoti Parmelo, Pastoralist and Indigenous NGOs Forum (PINGOs) and Indigenous Centre for Innovative Research Alliances (ICIRA)</i>	<i>41</i>
Ujamaa Community Resource: Amplifying Pastoral voices in conservation landscapes	42
<i>Makko Paine, Ujamaa Community Resource Team (UCRT), Arusha, Tanzania.....</i>	<i>42</i>
Politics of Environmental Conservation in South-western Nigeria, 1960-2019	44
<i>Kamil Adeyemi Hamzah Emmanuel Alayande, University of Education, Nigeria</i>	<i>44</i>
Fortress Conservation and the Adjacent Communities’ Coping Strategies in the South Western Serengeti	45
<i>James Kuboja, University of Dar es Salaam</i>	<i>45</i>
Digital Citizen Science, Data Justice and the Potential for a Decolonial Tropical Landscape Monitoring	46
<i>Michael Rikanga, University of Dar es Salaam.....</i>	<i>46</i>

From Rhetoric to Reality: Forging a Sovereign and Inclusive Conservation Agenda for Africa	47
<i>Olusola Olakunle Ogunjinmi, Adenike Mary Durojaiye, Emmanuel Alayande, University of Education, Nigeria</i>	<i>47</i>
Seeing Like a Satellite, Knowing like a Pastoralist: Co-Producing Rangeland Health Assessments in Tanzania’s Wildlife Management Areas	48
<i>Esmée Mulder, University of Colorado Boulder</i>	<i>48</i>
Digital citizen science, data justice and the potential for a decolonial tropical landscape monitoring	49
<i>Daniel Sifael, University of Dodoma</i>	<i>49</i>
Conserving Academic Freedom in Africa	50
<i>Muhidin Shangwe, University of Dar es Salaam</i>	<i>50</i>

Introduction

At present, numerous international efforts are pushing for the expansion of African regions as conservation areas for global benefit - especially in combating climate change and preventing biodiversity loss. From academic circles to policy summits, Africa's landscapes are being increasingly framed as the frontline for global environmental salvation. Yet, in this surge of conservation expansions, the perspectives of African communities, scholars, and practitioners remain marginal. This symposium - African Voices on Conservation in Africa - seeks to reclaim space for African-centered narratives in conservation. It offers a platform to share grounded insights, lived experiences, and scholarly critiques of how global conservation frameworks impact African environments and societies. We aim to examine the historical, political, and epistemic foundations of conservation in Africa, with special attention to the persistent dominance of Western narratives and external funding priorities. Additionally, we seek to envision a form of conservation that interrogates the association of criminality with the relationship between communities and their resources.

While conservation has deep roots on the continent, globalized efforts to formalize and control Africa's environmental resources intensified in the 1990s, catalyzed by the 1992 Rio Earth Summit and agreements such as United Nations for Biological Diversity (CBD), Framework Convention on Climate Change (UNFCCC) and Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Today, these frameworks are evolving again, shaped by ambitious agendas like 30x30 (to conserve 30% of the Earth by 2030) and Half-Earth (advocating for the protection of 50% of the planet's land and sea areas). The idea of designating vast tracts of land for biodiversity conservation aligns closely with long-standing global interests in Africa as a carbon sink, biodiversity reservoir, and site for ecological offsetting.

Despite the promotion of community-based initiatives, conservation continue to privilege global

environmental goals - like mitigating climate change or halting species extinction - while marginalizing African voices and local development needs. This raises urgent questions: What do these global-driven conservation initiatives mean for land and forest-dependent peoples in Africa? How have these initiatives transformed the African socio-economic and cultural landscapes and for whose benefit?

While many Global North researchers have contributed valuable insights into African conservation, their work has often been shaped by frameworks, institutions, and priorities external to the African continent. This raises important questions about epistemic equity, research sovereignty, and the role of African scholars and communities in setting conservation agendas and creating knowledge. We therefore invite contributions that critically reflect on these dynamics – including the politics of collaboration, authorship, funding flows, and institutional power - while also exploring transformative models of partnership that foreground African leadership in conservation research, knowledge systems and priorities. Submissions are also encouraged from community representatives, activists, conservation professionals, and interdisciplinary researchers. In this book we have put together abstracts that responds to the call to advance a more just, inclusive and Africa-led vision for conservation.

I take this opportunity to acknowledge the work of our advisory committee, partners and the UDSM organizing team, which improved the idea of this symposium. These are namely;

1. Prof. Emmanuel Sulle, Climate and Environmental Research Centre, Aga Khan University, Tanzania
2. Prof. Jim Ayorekire, Department of Tourism, Makerere University, Uganda
3. Prof. Dan Brockington, Institute of Environmental Science and Technology, Autonomous University of Barcelona, Spain

4. Dr. Mathew Bhuki Mabele, Department of Geography, University of Dodoma, Tanzania
5. Dr. Ruth John, Department of Geography, Open University of Tanzania
6. Dr. James Kuboja, Department of History, UDSM
7. Dr. Ritha Kalokola, Institute of Resource Assessment, UDSM
8. Dr. Benezet Rwelengera, Department of Geography, UDSM
9. Dr. Muhidin Shangwe, Department of Political Science and Public Administration, UDSM
10. Dr. Richard Sambaiga, Department of Sociology and Anthropology, UDSM
11. Dr. Kisiaya Saruni, Department of Sociology and Anthropology, UDSM
12. Ms. Rebeca Madaha, Department of Geography, UDSM
13. Godfrey Massay, LANDESA Tanzania

Let's engage and contribute to advancing a more just, inclusive and Africa-led vision for conservation.

Christine Noe

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Transformational Changes in Biodiversity Conservation

Mathew Mabele and Wilhelm Kiwango, University of Dodoma, Tanzania

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*June Rubis, Building Indigenous Initiatives in Heritage and Macquarie
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Laila Sandroni, University of Brasilia, Brazil

A recent Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) thematic assessment indicates that the current global biodiversity conservation paradigm has failed to halt nature's decline. A growing strand in the conservation literature problematises approaches rooted in colonialism, capitalism and the Western epistemic empire as at the core of the problem. It is increasingly accepted that the need for transformative change in the global conservation paradigm is therefore necessary and urgent. Adopting IPBES' definition, we understand transformative change as fundamental system-wide shifts in views, structures and practices that address underlying causes of nature's decline. We differentiate between *circular* transformations – those based on doing similar things repeatedly and *axial* transformations – those based on moving to different ways of thinking, governing and engaging. Circular transformations often involve incremental changes that reinforce the status quo (people-nature dichotomy, hegemonic Western episteme, capitalist financing and violence) rather than dismantling it. In this talk, we explore proposed and implemented circular and axial transformations in biodiversity conservation, and examine their trade-offs and promises for socio-ecologically just and plural human-nature relations. We elucidate potentials for a transformative biodiversity conservation that is grounded in decolonial views, non-capitalist structures and convivial practices.

Keywords: *Transformative conservation, decolonisation, human-nature relations*

Reclaiming the African Voice in Conservation through Afro-Positive Tourism: Experiences from Uganda

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Conservation and tourism in Africa have long been shaped by colonial and Western-centric approaches, without considering the context of African knowledge systems. This has marginalised indigenous knowledge and voices. This has progressively displaced communities from their ancestral lands, undermined local ecological knowledge, and prioritised meeting the desires of tourists over the needs of local communities. This paper draws from experiences in Uganda, where, despite over 50 years of promoting conservation and wildlife-based tourism, the majority of communities living adjacent to conservation areas remain marginalised and their livelihoods are continuously threatened by the protected areas they are supposed to conserve.

The paper explores how Afro-positive tourism - a model that centers on African identities, celebrates African heritage, and advocates for community leadership - can play a transformative role in reclaiming the African voice in conservation and tourism development. It examines the approaches that have over the years been implemented in Uganda, and assesses the extent to which local ecological knowledge systems have been integrated in conservation. Furthermore, the paper critically examines how the Afro-positive approach can be applied to challenge the prevailing view that local communities are a threat to nature and perception that ecosystems are only valuable as tourist attractions when untouched by humans. Thus, we revisit the “wilderness without people” concept and redefine conservation landscapes as spaces where nature and cultural heritage can coexist. We argue that human-wildlife conflicts can be mitigated, leading to local economic empowerment and development. This require revisiting the current conservation and tourism development approaches and consider a range of options - starting from multi-stakeholder perspective for sustainability, harnessing

of indigenous conservation knowledge systems, cultures and histories - into conservation of wildlife. These are predicated on the notion that an inclusive and equitable sustainable development approach that promotes tourism as a driver for environmental stewardship can result in economic empowerment and provide a platform where afro-centric cultural heritage can be celebrated.

Keywords: *Conservation-tourism nexus, indigenous knowledge, local communities, Afro-positive tourism*

Contested Landscapes: Land, Livelihoods, and Conservation in the Ngorongoro Conservation Area, ca. 1950s-2000s

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In recent years, concerns about conservation in the Ngorongoro Conservation Area have increased, with both wildlife and human life at the centre of the discourse. Despite the fact that human beings have co-existed with wildlife for centuries, the continued increase in the human population is affecting wildlife ecology with no regard for the local conservation strategies that are in place. This article explores the complex and contested history of belonging, land use and conservation in the NCA from the 1950s to the 2000s. It examines how colonial and postcolonial wildlife conservation policies in northern Tanzania have shaped, and been shaped by, the socio-political struggles of local Maasai communities. Through a historical lens, the study traces how conservation efforts, often driven by global environmental discourse and state interests, have conflicted with indigenous claims to land, mobility and livelihood practices. The article argues that the question of ‘who belongs’ to the NCA has been continuously negotiated and contested by multiple stakeholders, including local communities, the Tanzanian state, conservationists, and international agencies, each of which has

competing visions of land, development, and heritage. Drawing on archival sources, oral histories and policy analysis, the article reveals the enduring tensions between wildlife conservation and pastoral livelihoods, and highlights the complexities of managing protected areas in postcolonial Africa.

Keywords: *Ngorongoro Conservation Area (NCA), Wildlife conservation, Human rights, Maasai Pastoralism and Citizenship*

Does Participation Matter? Examining What Drives Community Participation in Wildlife Management Areas (WMAs)

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Gerald Eilu and Jim Ayorekire, Department of Forestry, Biodiversity and Tourism, Makerere University

Community participation is an important aspect in the successful management of wildlife in protected areas. It fosters a sense of ownership and responsibility among communities residing close to these areas. For many years now, local community participation in wildlife management has been practiced through implementing participatory approaches to wildlife management. In Tanzania, Wildlife Management Areas (WMAs) have been regarded as a suitable approach for local communities' participation in managing wildlife outside their core protected areas. However, in many cases, the term participation has been oversimplified with local communities being left out of management activities. Drawing on the Markuzi and Hay Framework of Public Participation, this paper assesses community participation in Wildlife Management Areas (WMAs) in Tanzania, specifically in Ikona and MBOMIPA. A mixed-methods approach was used to collect data across the two WMAs using household surveys, Focus group discussions, and

key informant interviews. The findings revealed that local communities are informed, but less empowered and consulted. Further, results revealed empowerment to be the most significant aspect influencing community participation, however, its performance is still limited due to structural constraints. Perceived benefits as a moderator have shown a critical role of tangible rewards in influencing community participation, the more benefits the local community received from their engagement in WMA activities, the higher the level of participation and vice versa. Demographic and site-specific differences also significantly shape the levels of participation. Further, the levels of participation also varied between the two sites Ikona and Mbomipa as a result of the influence of factors like age and the level of education. The study emphasizes the importance of consultation and community empowerment through inclusive decision-making, for enhancing community participation in WMA activities. Further, the study recommends strengthening empowerment initiatives, simplifying the information dissemination process, and tailoring participatory strategies to demographic contexts to optimize conservation outcomes and socio-economic development.

Keywords: *Community Participation, Wildlife Management Areas, Tanzania*

African Environmentalism: How financialization cripples people science of soil and water in Africa

Christine Noe, Department of Geography, University of Dar es Salaam

Ng'winamila Kasongi, Department of Geography, University of Dodoma

This paper responds to the call to ‘*think like a tree*’, which is the guiding philosophy for the ongoing project on Critical Zone Africa South and East (CzASE). Thinking vertically invites us to consider how land-based investments that focus mainly on productivity and economic growth statistics have significant but often ignored implications on

soil and water. While African soil and water conservation systems have developed sophisticated methods over generations and can be adapted to specific local environments and needs, it is often overlooked in favor of externally driven approaches. This has led to the adoption and prioritization of western-based developed solutions, sometimes undermining existing local realities hence causing more harm to soil health, water quality and even loss of valuable science of the people. However, a great deal of scholarly knowledge is produced under these conditions, hence creating a disparity between externally-oriented and people science of the environment. In this paper, we explore the gaps in scholarship with the aim of understanding who writes and command knowledge about the environment (soil, water, land productivity and change) in Tanzania's Kilombero and Rufiji landscape. We use bibliographic databases from Web of Science (WoS) to analyze publications produced in the past 50 years using bibliometric analysis. We also analyse the source of project funding for which the scholarship emerges to determine whose interest the scholarship serves but also how it misrepresents African environmental realities and priorities in daily lives of the people. Using the field data from CzASE, we demonstrate how agricultural modernization policies that focus of commercial production and financialization are systematically designed to support multilateral investments that come through development partnership projects and programmes. These investments in the Kilombero – Rufiji landscape have created heavy reliance of small famers on agrochemicals with significant implications on water and soil health.

Keywords: *African environmentalism, people science, soil, water, Kilombero-Rufiji, Tanzania*

Mapping wildlife Diplomacy between Tanzania and Kenya: Prospects and Challenges, 1950s-2024

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University of Dar es Salaam*

Diplomacy plays an important role in wildlife conservation. However, neither diplomatic nor conservation literature have paid attention to issues of conservation diplomacy despite the increasing support for cross-border resource protection. This paper explores the manifestation of diplomatic relations in the wildlife sector using the case of Tanzania and Kenya and the extent to which diplomacy influences wildlife conservation and related tourism activities. The paper uses historical lenses to reveal how between the 1950s and 1960s, Tanzania and Kenya had stable diplomatic relations on wildlife conservation that resulted in tourist hunting investments. However, weak regulatory enforcement affected conservation. The period between the 1970s and 1980s saw tense diplomatic relations in the two countries especially caused by tourism battles which culminated in border closure from 1977 to 1983. This affected conservation activities significantly and threaten wildlife protection projects. Between 1990s and 2024, despite emergence of some standoffs, improvements in diplomatic relations resulted from reforms in policies and practices especially on matters pertaining to trans-border conservation.

Keywords: *wildlife conservation, diplomacy, diplomatic relations, tourism, Tanzania, Kenya*

Contested Landscapes: Narratives of Territorialization in Transfrontier Conservation Parks in Southern Africa

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This paper presents a comparative political ecology analysis of the processes of territorialization within two seminal transfrontier conservation areas in Southern Africa which are Chimanimani Transfrontier Conservation Area (TFCA), straddling Mozambique and Zimbabwe, and the Great Limpopo Transfrontier Park (GLTP), encompassing Mozambique, South Africa, and Zimbabwe. It argues that the establishment and governance of TFCAs is not merely ecological or diplomatic endeavours but a profound exercise in re-territorialization that generate deeply contested landscapes (Vandergeest and Peluso, 1995). These contests emerge from the collision between a top-down, neoliberal “peace parks” narrative – promoting ecological connectivity, economic development through tourism, and regional cooperation (Duffy, 2013; Büscher, 2013) – and the bottom-up, lived experiences of local communities who encounter these projects as new forms of control, displacement, and the circumscription of their ancestral territories and socio-economic practices (Adams & Hutton, 2007). The demonstrate how the two landscapes exemplifies overlapping and conflicting territorialisation. They are physically managed for biodiversity but are socially and politically constituted by deep-seated struggles over power, meaning, and belonging. The “contested landscape” is thus a material reality and a discursive arena where the power of the global conservation model is tested against local realities and resistance.

Limitations of Community-Driven Wildlife Conservation for Conflict Prevention at Loliondo GCA, Tanzania

Ruth John, Open University of Tanzania

The theme of this conference attests to the existing tensions between global resource governance and local rights, livelihoods, and sovereignty. This paper investigates how social-economic and political issues as well conflicts over resource use impose pressure on local users of land and exacerbate conservation-related conflicts around protected areas. The paper focuses on the Maasai people in Loliondo Game Controlled Area (GCA) that borders Serengeti National Park. It examines their different adaptations to changes in the past two decades, including human population structure, social, economic, and cultural norms. Using political ecology framework, the paper identifies the flaws of current methods for addressing human-wildlife conflicts and propose a community-driven approach to address the basic social, cultural, and ecological challenges that humans and wildlife encounter in the neighbourhood of protected areas. By mapping interconnected barriers to development, the paper identifies gaps in current community plans and suggest measures to improve especially in relation to conflict mitigation for better livelihoods. The paper demonstrates that integrated planning that combines conservation goals with daily needs of the people is necessary for stronger institutions and peaceful cohabitation between people and wildlife. I argue that the lack of community-driven conservation initiatives as a strategy for conflict resolution has negatively impacted people's livelihoods.

Keywords: *Wildlife conservation, conflict resolution, Co-existence, Livelihoods*

Harnessing Natural Resources and Institutional Quality for Sustainable Financial Development in East Africa: Insights from Geographic, Macroeconomic, and ICT Factors

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This study critically examines the interplay between global conservation finance and institutional frameworks in shaping sustainable financial development in East Africa, with insights from geographic, macroeconomic, and ICT factors. It interrogates donor-driven models, such as “30x30” and “Half-Earth,” and identifies a paradox wherein natural resource abundance (logNAR), the primary target of conservation, exerts a significant negative impact on financial development, creating a “conservation resource curse” that prioritizes international environmental goals over local economic resilience. Employing a comprehensive panel dataset (1980–2021) and the Pooled Mean Group (PMG) estimation method, the analysis demonstrates that robust African institutional quality, particularly Government Effectiveness and the Rule of Law, is the paramount factor for positive financial outcomes, underscoring that local governance is more critical than the volume of external funding. While ICT innovations, from mobile money to GIS-based planning tools are promoted as pivotal for financial inclusion and work synergistically with factors like gross capital formation (logGCF), their impact is double-edged; without strong institutional embedding, they risk misrepresenting local realities and reinforcing top-down approaches. The study concludes that a fundamental reorientation toward African agency is essential, centering on policies that strengthen endogenous institutional capacity, ensure resource management delivers local benefits, and deploy technology to empower, rather than substitute, community voice and sovereignty, thereby aligning financial systems with the aspirations of Agenda 2063.

Keywords: *Conservation Finance, Institutional Sovereignty, Natural Resources, ICT Innovation, 30x30, East Africa*

The Blessings of Kilimanjaro: Perspectives of Tanzanian Mountain Crews

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Mt. Kilimanjaro has fascinated people from all walks of life for over a hundred years. It attracted European explorers, mountaineers, and authors beginning in the mid-19th century and saw a mushrooming mountain climbing industry in mid to late 20th century. The commercialization of high-mountain-climbing tourism coupled with the fact that technical mountaineering gear and experience are not needed to reach Uhuru peak (the highest peak) has led to tens of thousands of climbers ascending the mountain each year. This paper explores the significance of the Kilimanjaro Mountain to the local porters and guides, who perform the most significant tasks on the mountain. The paper highlights the various layers of meaning that mountains hold, including nationalism, masculinity, heroism, and environmentalism. The mountain is seen as a blessing for many porters and guides, providing employment, but also as a source of life and spirituality. It also attracts people from around the world to interact with them. Understanding the perspectives of Kilimanjaro crews offers a comprehensive view of the meaning of mountains and provides insights for mountain tourism.

Reclaiming *Dupoto e Ramat*: Indigenous Sovereignty and the Political Ecology of the Maasai Land

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This paper explores the struggles over land, sovereignty, and conservation in Maasailand through the lens of *Dupoto e Ramat*—the Maasai philosophy of the gracious land that sustains wealth, life, and future generations. It argues that mainstream conservation and land governance models, shaped by colonial legacies and neoliberal green agendas, continue to dispossess pastoralist communities under the guise of environmental protection, ecotourism, and carbon offsetting. Centering *Enkulukoni aang' Enkishui aang'* (“our land, our life”) as a foundational worldview, the paper examines how Maasai communities resist land grabs and reassert Indigenous sovereignty through organic peaceful protests, community-based conservation, and cultural resurgence. Drawing on political ecology and decolonial Indigenous thought, the paper reveals how conservation has become a site of contested sovereignty—where ecological narratives intersect with struggles for self-determination. By foregrounding Maasai epistemologies of land and belonging, the presentation challenges dominant conservation logics and calls for a shift toward Indigenous-led approaches rooted in relational ethics, intergenerational responsibility, and territorial autonomy.

Keywords: *Maasailand, Dupoto e Ramat, conservation, Tanzania*

Integrative Conservation and Management Approaches in Wetlands support the mutual health and survival of amphibians and aquatic insects.

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Wetlands in highland ecosystems are critical biodiversity reservoirs, yet their conservation often suffers from taxonomic bias, where management favours either vertebrate or invertebrate species, but rarely both. Amphibians and aquatic insects share habitat requirements and are similarly vulnerable to hydrological changes, pollution, and habitat fragmentation. This paper focuses on three threatened frog species (*Hyperolius cystocandicans*, *Phrynobatrachus kinangopensis*, and *Phrynobatrachus irangi*) and three threatened dragonflies (*Platycypha amboniensis*, *Onychogomphus nigrotibialis*, and *Notogomphus maathaiae*) to show that targeted habitat management will benefit even species with unknown population trends across multiple taxa. Standardised surveys were conducted to assess species presence, abundance, co-occurrence, vegetation structure and water quality. Co-occurrence was analysed using joint species distribution models (JSDMs) with integrated environmental variables to estimate the likelihood of species occurring together at sites while distinguishing between shared and individual habitat responses. There was a strong overlap in habitat between targeted frogs and dragonflies even for species with unknown population trends. The paper shows that for both dragonflies and frogs, shared environmental correlations were stronger than residual correlations. This suggests ecological interdependence between amphibians and aquatic insects in highland wetlands, which require integrated wetland management to enhance conservation outcomes across multiple threatened taxa.

Is the operation of the Citizen Science Initiatives in Forest Conservation and Local Community leading to Empowerment?

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There is widely held assumption that operation of citizen science initiatives in forest conservation is a promising model capable of leading to local community empowerment. This paper is grounded on communities that are adjacent to village land forest reserves (VLFRs) in Kilosa district of Tanzania to explore how citizen science initiatives can empower individuals, household and community in strengthening forest conservation efforts. The paper used mixed methods to obtain data. Household surveys were conducted with community members who are engaged in citizen science initiatives, key informant interviews (KII) were conducted with government officials, local leaders and NGO's representatives. Focus group discussions were conducted with men and women separately while observation was used to study forest health and conservation activities. Household surveys were analysed using SPSS while qualitative data were analysed using Nvivo. It was revealed that, there are mediating factors for citizen science initiatives. The paper concludes that, citizen science initiatives in forest conservation fall in the same trap as a mere community-based forest management (CBFM) as its sustainability in forest conservation remains in question. Addressing these mediating factors helps in planning and preparation of forest conservation and community empowerment strategies.

Keywords: *Citizen science, forest conservation, empowerment*

Silencing Indigenous Voices in the Farming and Conservation of the Angar-Didessa Valley, Western Ethiopia (1975-2018)

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For long, the forest ecology of the Angar-Dhidhessa Valley was known for its ecological niche in Ethiopia. It was an essential source of wild food, honey, medicinal plants, and materials for shelter and tools. The close historical relationship between the valley ecology and local peoples underscore the significance of preserving such ecological niches for supporting both biodiversity and cultural human livelihoods. This paper attempts to explore the marginalization of indigenous voices in the farming and conservation practices of the Angar-Didessa Valley in Western Ethiopia from the time the state launched mechanized farming in 1975 to 2015. The state-led agricultural reforms and conservation practices ignored the local knowledge, practices, land rights, and the living mode of local communities. By examining historical policies, land governance systems, and the responses of the local community, the paper highlights how top-down approaches imposed by government and development agencies contributed to the silencing of indigenous perspectives and local economies. The paper reveals how this distinct historical political ecology features have displaced the preexisting livelihood systems and reshaped the social and environmental settings in the region. The silencing has undermined sustainable farming practices of local ecological knowledge as well as exacerbated socio-economic vulnerabilities and ecological challenges in the valley. The paper argues in favor of integrating indigenous knowledge systems to ensure inclusive valley governance and sustainable conservation. In so doing, the state can promote environmental sustainability and social equity in the region in the agricultural development efforts.

Keywords: *Conservation, Farming, Forest ecology, Local people, State.*

Citizen Science Beyond Data Production: Insights on How Citizens Use Their Own Data for Forest Governance in Tanzania

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Forest governance in Tanzania transformed towards participatory approaches over the last three decades to incorporate indigenous and local communities in decision-making processes. Despite these efforts, the goal of empowering the communities has not yet been fully realized. Lately, citizen science has emerged as a tool for actively engaging the local communities in the governance processes. It involves citizens in the production of data that are critical in decision-making processes. While much of the existing literature on citizen science focuses on the involvement of the citizens in producing data, it does not consider whether they are also involved in actual decision-making. This paper investigates how and to what extent citizen science empowers the citizens to use the data they produce to influence forest decisions. Employing a mixed methods approach, the study will gather data through in-depth interviews, focus group discussions, semi-structured questionnaires, and document review. Qualitative data was analysed through content analysis while quantitative data will be analysed using a Statistical Package for Social Sciences (SPSS). Drawing from David Easton's Input-Output model as a frame of analysis, this paper explores whether citizen-generated data is integrated into forest governance decisions. It contributes to broader political debates on institutional reforms that seek to incorporate or empower indigenous and local communities in decision-making processes.

Keywords: *Forest governance, citizen science, citizen-generated data, decision-making*

Deconstructing Digital Divides: Ensuring Equitable Access and Empowering Marginalized Voices in African Forest Governance

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Citizen science enables non-scientists to contribute meaningfully to scientific knowledge and environmental decision-making. In many cases, citizen science depends on digital tools such as mobile applications, GIS systems, online platforms, and cloud-based databases that enhance data collection, visualization, and communication. Despite their potential, these digital tools are not accessible to all members of African communities. Barriers related to affordability, poor infrastructure, limited digital literacy, and lack of culturally relevant content often exclude women, youth, and indigenous groups from participating in forest governance. This digital divide reinforces existing inequalities and prevents marginalized voices from contributing to decisions about forest resources. This study aims to identify the challenges limiting the use of digital tools in community-based forest governance and explore what is needed to make them more accessible and inclusive. Using a mixed-methods approach, we will analyze data from surveys and focus groups involving both users and non-users of digital tools. Our findings will inform practical solutions that promote digital inclusion and ensure that all community members can participate meaningfully in forest governance and conservation efforts.

Keywords: *Citizen Science, Digital divide, Marginalized communities, Digital Inclusion, Forest governance*

Renaturalising Socio-nature Coexistence: A Decolonial Political Ecology of Forest Conservation and Pastoralism in Tanzania

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Forest sustainability has attracted global attention in recent years, where rising concerns about climate change and loss of biodiversity have driven renewed calls for conservation efforts. However, several studies invite us to interrogate who the ‘we’ is in these calls and to unpack precisely what is being sustained. These questions are pertinent given the fusion of colonial forestry and current neoliberal conservation ideals, which advance forestry-incompatible values that produce conflictual socio-ecological relations. We employed a decolonial political ecology approach to examine pastoralism-forestry relations, which have been historically naturalised as incompatible, resulting in the systemic displacement of pastoralist land-use practices from forested landscapes in Tanzania. Drawing from 18-months of fieldwork in the SULEDO Village Land Forest Reserve, located in Tanzania’s South Maasailand, we conducted documentary reviews, ethnography, and biophysical assessments to examine how pastoralist-forestry relations have been sustained. We show that forest sustainability relies on recognising and centering positive pastoral identities and re-storying Indigenous socio-ecological relations. Through re-naturalising socio-nature coexistence, we argue for re-embedding pastoralist-forest coexistence and re-pluralising forested landscapes as ecological, political, socio-cultural, and economic entities. This should go hand in hand with restructuring, reforming and retransformation of the technocratic status quos. We submit that a radical decolonial conservation approach is necessary for the post-colonial state to delink from inherited colonial imaginaries of African landscapes and relink with people and their situated knowledge practices that sustain community-forestry relations. As Frandy (2018) reminds us, people do not sustain resources; they sustain relationships.

Active Resource Use, the Key to Restoring African Tree Systems

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Socially-culturally-economically, African tree systems are key to economic timber development, but the livelihood needs and business development options of millions of rural people are ignored. Such options include firewood, charcoal, poles, and diverse non-wood products (bark for traditional medicine and fibre, fruit for juices and jams, fibres for crafts, etc). Traditional slash-and-burn cropping systems, and charcoal production, are condemned when they are superior resource management systems maintaining the biodiversity and ecological functionality of natural tree systems. This paper proposes an active, integrated, multiple resource use approach for socio-economic development that would restore the biodiversity and functionality of natural tree systems cost-effectively. Regeneration and growth through four stand development stages (mature stands are stage 4) are key to sustainable resource use in natural forest systems. Rural women are key resource managers through guided regular harvesting of suppressed stems for firewood and small poles in stages 1 and 2, and men for harvesting poles for construction and charcoal production in stages 3 and 4, facilitating productive stand development with continuous optimal carbon sequestration.

Indigenous Eco-politics: From Decolonising to Liberating Conservation in Africa

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This paper examines the evolving trajectories of conservation in Africa through the lens of Indigenous eco-politics, positioning decolonization and Indigenization not merely as academic discourses but as lived, dynamic struggles for liberation. Drawing on Grafton and Meançon's

(2020) framing of decolonization as an emancipatory response to colonial oppression and Indigenization as a resurgence of precolonial epistemologies, it critiques the limitations of mainstream conservation models rooted in colonial legacies, including the protected areas paradigm and its contemporary adaptation, Community-Based Natural Resource Management (CBNRM), now in a crisis of identity and purpose. Comparative insights from Indigenous-led approaches and the global recognition of Indigenous and traditional territories under CBD Target 3 illustrate how Africa can move beyond exclusionary “protected areas” toward conservation grounded in Ubuntu, communal stewardship, and Indigenous knowledge systems. Case studies from East and Southern Africa, alongside the ongoing land struggles of the Maasai and Ogiek, reveal how militarized, elite-driven conservation undermines justice and sustainability. The paper ultimately calls for a radical systems shift that centers Indigenous Peoples and local communities (IPLCs) as custodians of land and biodiversity, reframing conservation as a liberatory practice rooted in equity, identity, and ecological reciprocity.

Ritual Uses and Sustainable Practices: Sacred Forests as Living Science of Conservation in the Grassfields of Cameroon

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Sacred forests continue to play a central role in the lives of communities in several regions of Cameroon. Far from being mere cultural relics or spaces frozen in tradition, they are at the heart of an endogenous ecological management system. By examining the place of these forests within contemporary conservation dynamics, this paper stems from fieldwork conducted over several years in Northern and Northwestern Cameroon. It explores the knowledge and practices associated with sacred forests, rooted in local traditions, as well as the possibility of recognizing these spaces as legitimate forms of conservation science. One is also entitled

to question what their marginalization in current environmental policies reveals, as well as the power relations surrounding knowledge, territory, and nature in Africa more broadly. The paper proposes an interpretation of sacred forests as forms of conservation through the sacred. It articulates Indigenous epistemologies and situated ecological practices and deconstructs the dichotomy between “traditional” knowledge and “modern” science in order to highlight the effectiveness and complexity of local biodiversity regulations. Their marginalization in international frameworks such as the 30x30 program or the CBD (Convention on Biological Diversity) must be questioned. By re-inscribing these practices within the field of “living science” (Dei, 2012; Nganje, 2020), the paper calls for epistemic recognition of African knowledge systems as legitimate foundations for environmental governance. By putting into tension two logics of conservation, one rooted in the sacred and in the uses, and the other based on institutional science and global norms, this paper invites a reconsideration of what should be considered “science” in debates on nature. It also advocates for a revalorization of endogenous practices, not merely as “complements” to dominant models, but as complete forms of environmental knowledge, constructed through daily life, memory, and relationships between humans and non-humans.

Keywords: *Sacred forests, conservation, Grassfields, environment, Indigenous epistemologies.*

Whose Land, Whose Future? Maasai’s Livelihood Security and the Conservation-Climate Nexus in Ngorongoro

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The Ngorongoro Conservation Area (NCA) in Tanzania is UNESCO’s Mixed World Heritage Site, which is famous, inter alia, for its unique model of multiple land use, allowing for the harmonious coexistence of wildlife, livestock and the indigenous Maasai people. The co-existence narrative has generated enthusiasm amongst tourists and activists

who support the participatory conservation approach for many years. However, in the recent past, there have been repeated land-use conflicts between the pastoralists and conservation authorities, culminating into a decision to relocate the pastoralists to other areas. One of the challenges that have led to the decision to relocate the pastoralists is climate change. It is argued that human activities have altered conditions in the area impacting negatively on the co-existence narrative. Based on primary qualitative data, this paper examines claims of the indigenous Maasai's right to their ancestral land and their indigenous knowledge on protocols that conserve nature; mitigate the processes of climate change; and help them to adapt to effects of climate change to remain resilient. These claims, however, are regrettably contested by representatives of the government, who subscribe to the fortress conservation approaches in the mitigation of climate change and protection of the property. It is concluded in this paper that discarding participatory approaches to conservation and mitigation of climate change in the NCA has detrimental effects to the pastoralists' livelihood security and their future as indigenous communities.

Keywords: *Livelihood security, climate change, fortress conservation, indigenous knowledge*

Macrofauna-environment interactions and their potential in restoring degraded landscapes in the context of Sub-Saharan Africa: A review of current knowledge

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Restoration of degraded landscapes is a pivotal process to progressively recover lost ecosystem services, for which innovative nature-based solutions are warranted including in sub-Saharan Africa (SSA). This review summarizes the current knowledge on different aspects of soil macrofauna in degraded SSA landscapes, an otherwise overlooked component of ecological restoration. The paper demonstrates differences in the pattern of macrofauna distribution across different land use systems in the region, with agricultural systems showing the highest level of macrofauna diversity (7 classes encompassing 43 orders) than any other land use system considered in the review. Comparatively, mining wastelands had the least percentage of macrofauna classes, represented by a single class (Insecta) and two orders (Coleoptera and Isoptera). Variations in macrofauna taxonomic composition are also shown in the context of their adaptation and ability to engineer degraded landscapes. The recorded functional attributes encompass tolerance to harsh environments, bioturbation, breakdown of organic matter, nutrient cycling and bioindication of biodiversity recovery. Irrespective of land use systems, cooler soil temperature, elevated soil pH and high level of soil organic matter are presented as favorable environmental conditions for macrofauna abundance and diversity, with emphasis put on quality of organic inputs from vegetation cover. Target macrofauna groups for bioaugmentation are highlighted, with the best representatives being Earthworms, Termites and Ants. Opportunities and challenges of their integration in restoration efforts are also discussed, especially in the context of SSA mining landscapes. While analysis of publications

conducted for this study reveals a progressive increase in the number of publications about macrofauna in southern Africa, this review attests that the inclusion of soil macrofauna in restoration efforts in SSA is still rather low. The lack of a better understanding of macrofauna tolerance mechanisms and the precise nature of their interactions with both biotic and abiotic environmental factors is identified as a plausible stumbling block, thus an avenue for future investigations.

Keywords: *Mine wastelands, Soil Macrofauna, Functional traits, Ecological Restoration*

Forms and Sources of Structural Bias in African Conservation Science

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Anybody of collected knowledge will be marked by the biases of its creators, intentional and unintentional. The social forces that go into creating them strongly shape how we can know about the world. This paper reviews different bodies of knowledge pertaining to conservation knowledge in African contexts, with special reference to Tanzania, from a variety of sources, published and unpublished, and in the fields of natural and social sciences. Specifically, we summarise knowledge about biodiversity, land cover, ecoregions and population data showing how what is known, and where data are collected from, contain a series of systemic biases, omissions and commissions. We also show that conservation social science, particularly in Tanzanian contexts demonstrates a further, but different set of biases. The collective consequence of these different errors across different sources is to privilege knowledge about Africa that is produced by or for the Global North, rather than by and for African scholarship. At the same time a different set of data, which are less readily available, can be influential when shaping conservation policy, particularly in Tanzania. We examine

some of the consequences of these tendencies and consider ways in which problematic biases, and opacities, may be more effectively contested and replaced.

Indigenous Marine Knowledges in the Ocean Anthropocene: Towards Epistemic Justice in African Coastal Futures

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In the face of accelerating climate change, sea-level rise, and biodiversity loss, the concept of the “Ocean Anthropocene” has emerged to describe the human-driven transformation of marine environments. However, dominant scientific and policy discourses often universalize the Anthropocene, erasing colonial histories of oceanic dispossession and silencing Indigenous marine epistemologies. This paper recenters Indigenous and Afro-descendant coastal knowledges in shaping sustainable ocean futures in Africa. Drawing from coastal communities in Bagamoyo, Lamu, and Zanzibar, the paper explores how Indigenous marine knowledge—embedded in ecospirituality, oral tradition, and lived seascapes—offers place-based ways of understanding marine ecosystems. These knowledges are not merely cultural residues; they are active systems of governance, resilience, and cosmopolitical engagement with non-human beings such as tides, winds, and ancestral spirits. The paper critiques the epistemic exclusion inherent in mainstream marine conservation and blue economy frameworks. It argues that indigenous marine knowledge must be recognized not as supplementary but as central to confronting the uneven geographies of the Ocean Anthropocene. By weaving together ethnographic insight, indigenous philosophy, and political ecology, the paper proposes a radical pluralism in marine conservation - one that acknowledges the spiritual, ethical, and political sovereignty of coastal communities. It advocates for epistemic justice as a critical pillar of ocean governance in the African continent.

Unpacking Green Developmentalism: A Critical Examination of REDD+ and Clean Cooking Initiatives in Ghana, Tanzania, and Zambia

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This article critiques the notion of green developmentalism through the lens of REDD+ and the Modern Cooking Facility for Africa, with a focus on Ghana, Tanzania, and Zambia. Drawing on McAfee's (1999) concept of "selling nature to save it" and Death's (2022) "Climate Fiction, Climate Theory", we argue that these initiatives, rooted in post-neoliberal environmental economics, commoditise nature by assigning monetary values to ecosystems and their services. This global environmental-economic paradigm, exemplified by Payment for Ecosystem Services (PES) schemes, prioritises market-based solutions, often overlooking social equity and complex socio-ecological dynamics. We contend that these initiatives reanimate historical tensions over wealth, power, and development, resembling colonial projects in that they prioritise external interests over local needs. Through an integrative literature review and comparative case analysis of climate-related and environmental conservation policies and practices in the three case study countries, we highlight the hurried adoption of these programs, driven by promises of conservation funding and economic efficiency. However, such approaches risk exacerbating vulnerabilities in Global South communities by neglecting equity, local knowledge and cultural diversity. Building on political ecology and decolonisation perspectives, we advocate for: (i) decolonising global environmental governance to centre local voices and knowledge, (ii) fostering Global South solidarity to address local challenges without reliance on market-driven solutions, and (iii) strategic participation in international mechanisms to ensure equitable and sustainable outcomes. This study underscores the need to critically reassess market-based conservation and climate change

adaptation (CCA) strategies to prioritise social equity and ecological integrity, challenging the dominant discourse that frames nature as a commodity for global exchange.

Situating Local Knowledge in the Climate Crisis: Exploring organic cocoa farming in Ghana

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As climate change continues to reshape agricultural systems across the globe, there remains a significant gap in understanding how smallholder organic farmers interpret and respond to its effects. This study critically examines the perceptions and lived experiences of organic cocoa farmers in Ghana, situating their local ecological knowledge within broader conversations on climate resilience and sustainable agriculture. While dominant climate discourse is often shaped by top-down scientific models, this research argues for the inclusion of farmer-based knowledge systems as vital to both policy and practice. Organic cocoa farming even though a marginal sector in Ghana's cocoa economy, it offers unique insights into environmentally conscious cultivation practices under increasing climatic stress. The study argues for greater recognition of organic farmers as agents of climate resilience and calls for inclusive climate policies that integrate indigenous ecological knowledge into sustainable agricultural planning. The study also speaks to ongoing scholarly and policy debates around agroecology, climate justice, and sustainability transitions in the Global South.

Decolonizing Drought and Conservation Monitoring: An African-Led Stewardship App for Tanzania's Drylands

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Global conservation targets such as 30x30 and Half-Earth increasingly shape African landscapes through externally driven frameworks that often marginalize indigenous knowledge, local rights, and African-led stewardship. In dryland regions like Dodoma and Manyara Districts, pastoralist communities face both climate-induced droughts and restrictive conservation regimes that overlook their adaptive management practices. This paper presents the African Voices Drought & Ecosystem Stewardship (AVDES) App, an open-source, interactive monitoring tool developed using Google Earth Engine (GEE). The App enables dynamic visualization of key ecosystem indicators, including Standardized Precipitation Index (SPI, proxy), vegetation health (NDVI), and drought trends, with region selection, time series analysis, and data export capabilities. By integrating these indicators, the App supports African scholars, local conservation actors, and communities in generating their own evidence of environmental change. The tool challenges dominant surveillance-driven conservation models by foregrounding African agency in knowledge production. It enables users to analyze how climate stressors intersect with land use, protected areas, and community livelihoods critical for advocating ecosystem justice and climate-resilient conservation. Moreover, it provides an accessible platform for participatory monitoring, supporting locally appropriate conservation strategies and adaptive land use. Aligning with the conference's call to reclaim African narrative, agency, and knowledge production in conservation, this contribution offers both a methodological innovation and a practical example of decolonizing digital conservation tools. The AVDES App exemplifies how open geospatial technologies can advance Africa-led conservation agendas grounded in environmental justice, resilience, and sovereignty.

Ecological Distribution, Diversity and Regeneration Status of *Dracaena Ombet* in Afromontane Dry Forest of northern Ethiopia

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Plant species are influenced by anthropogenic, natural, and climate impacts. This study assessed the diversity, abundance, richness, and regeneration status of *Dracaena ombet* along an elevation gradient in northern Ethiopia. The elevation was stratified into three zones: submontane (<1500 m a.s.l.), montane (1501–1700 m), and upper montane (>1701 m). Vegetation data were collected using nested plots, and composite soil samples were analyzed. Species diversity was quantified using PAST software, with one-way ANOVA and Gabriel's post hoc test used to examine differences across zones and districts. Results showed significantly greater species richness, abundance, and stand density in the upper montane zone ($p = 0.019, 0.037, \text{ and } 0.009$, respectively). However, *D. ombet* reached its maximum height in the submontane zone and its lowest in the upper montane. Available phosphorus differed significantly between the montane and submontane zones ($p < 0.04$). Sandy loam was the dominant soil texture in 75% of sites where *D. ombet* occurred. Species abundance was significantly correlated with several soil properties: negatively with phosphorus, evenness, and cation exchange capacity (CEC); positively with bulk density and potassium. Regeneration analysis indicated a J-shaped distribution in both height and DBH classes. Overall, *D. ombet* shows poor regeneration, which highlights the urgent need for conservation efforts to ensure its persistence, especially in the upper montane zone.

People, Policies and Politics of Conservation in the East African Community

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The implementation of conservation policies in the East African Community has led to tensions and outright conflict between communities and between communities and governing authorities. This paper seeks to explore the intersection of conservation policies – in the member states of Kenya, Tanzania, Uganda, the Democratic Republic of Congo, Rwanda, Burundi, South Sudan, and Somalia. Each of the partner states – with particular focus on political-economic issues involved in conservation practice, and the impact of conservation policies and politics on Indigenous communities. This will entail a mapping of the conservation policies of the EAC and member states, a political-economic analysis of policy implementation that impacts Indigenous communities, and the response of Indigenous communities. The paper will use case studies of Indigenous communities from each of the member states for contextual analysis.

From Coexistence to Conflict: Militarized Conservation, Maasai Displacement, and the Crisis of Multiple Land Use in Ngorongoro

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The Multiple Land Use Model (MLUM) in the Ngorongoro Conservation Area (NCA) was introduced in 1959 as one of the earliest examples of Community-Based Conservation (CBC). It was designed to balance wildlife conservation with the rights of local communities, particularly the Maasai, by allowing both people and wild animals to coexist within the same space. Unlike previous studies that largely overlooked

historical analysis in addressing conservation and livelihood challenges, this study takes a historical approach. Drawing from archival, oral, and secondary sources, it argues that the MLUM was flawed from the start and ultimately destined to fail due to the militaristic nature of conservation practices within the NCA. As a result, the ongoing eviction crisis in the NCA should not come as a surprise. This chapter advocates for a shift in approach by the state and other conservation stakeholders. To ensure sustainable wildlife conservation, it is essential to move away from militaristic conservation strategies in CBC projects like the NCA.

The Coloniality of Forestry: Decolonial Possibilities and African Environmental Ethics

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This forthcoming book chapter in *The New Routledge Handbook of Political Ecology* makes a case for continued interrogations of (de) coloniality in tropical environments. We build on similar calls by political ecologists (e.g. Adeniyi Asiyambi and Ariadne Yolanda Collins), and on those by African philosophers (e.g. Munamoto Chemhuru) for increased attention paid to African environmental ethics. We borrow insights from (de)colonial political ecology and African environmental ethics, two strands that support our critical reflection on ongoing efforts to address the climate crisis through forest protection in Tanzania. We then use Tanzania's carbon forestry experiences to present three examples that demonstrate coloniality in terms of carbon inequalities and climate injustices, carbon offsetting as a low-hanging fruit and dangerous diversion, and the scientification and epistemic injustices, carbon forestry. Our chapter advances the discussion by showing

attention to (de)coloniality within a political ecology of carbon forestry could amplify non-climate crisis. We thus call for political ecology's closer attention to such alternative epistemes in the efforts to explore decolonial possibilities in tropical environments.

Keywords: *Coloniality, carbon inequalities, climate injustice, African environmental ethics*

From Rhetoric to Reality: Forging a Sovereign and Inclusive Conservation Agenda for Africa

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Africa's biodiversity is a global asset facing severe threats, yet its conservation has historically been dictated by top-down, externally-designed models that often marginalize local communities. This legacy has created a rift between conservation goals and the socio-economic realities of African people. As the continent stands at an ecological crossroads, the sub-theme "*The future course for Africa's conservation agenda*" demands a critical re-evaluation and a decisive shift towards practices that are both effective and equitable. This paper argues that Africa's conservation future must be radically reimagined, moving from peripheral consultation to central leadership by African communities. It aims to deconstruct the outdated "fortress conservation" paradigm and propose a new, sovereign framework built on the pillars of: the epistemic justice of legitimizing Indigenous Knowledge systems, devolved and community-led governance structures, and the creation of viable conservation-economy linkages that ensure local benefit. This argument is developed through a multi-pronged approach: a comparative analysis of community-based natural resource management (CBNRM) case studies in Southern and East Africa; a critical policy review of trans-boundary conservation initiatives; and the application of de-

colonial theory to envision alternatives rooted in African philosophies of interrelation and stewardship. The analysis demonstrates that while community-centric models show superior outcomes in sustainability and compliance, they are consistently hampered by systemic barriers. These include inequitable profit-sharing, insecure land tenure, and the persistent influence of international agendas that prioritize global over local value. Success is found where communities are not merely participants but are the primary architects, managers, and beneficiaries of conservation efforts. The definitive future for African conservation is one of **self-determination**. This paper concludes that a transformative agenda must empower African communities as the primary authors and executors of conservation policy. It provides practical recommendations for embedding justice and inclusion into the core of conservation practice, ensuring it contributes to climate resilience, economic dignity, and cultural heritage. By championing truly African voices, this approach charts a course that protects ecosystems by empowering people, setting a new global standard for effective and ethical conservation.

Keywords: *Climate resilience, de-colonial theory, fortress conservation, trans-boundary conservation*

African Cultural Practices and Environmental Management in Democratic Nigeria

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To this day, attempts have been made in Africa to build a framework for reducing environmental risks and insecurity in wildlife conservation, and these efforts are ongoing. This study examines the intersection between African cultural practices and environmental management and protection in Nigeria, highlighting how indigenous knowledge systems have historically contributed to the sustainable use of natural resources. Cultural practices worldwide represent a longstanding form

of community-based conservation, serving as areas of profound cultural and religious significance. In many cases, entire communities actively protect these sites from desecration or unauthorized access by both insiders and outsiders. Drawing on oral traditions, community norms, taboos, and sacred ecological practices, the paper explores how pre-colonial and postcolonial societies in Nigeria developed culturally rooted mechanisms to conserve forests, rivers, and wildlife. It analyzes the role of festivals, traditional belief systems, and communal land tenure arrangements in promoting ecological balance and preventing environmental degradation. Furthermore, the study also interrogates the extent to which colonial and postcolonial modernization disrupted these indigenous practices, leading to deforestation, biodiversity loss, and climate-related challenges. Using a multidisciplinary approach, the research underscores the need to integrate traditional ecological knowledge with modern environmental policies to achieve sustainable resource management in contemporary Nigeria. This paper employs both primary and secondary sources to interrogate the nexus between the **African cultural practices and environmental management** in post-colonial Nigeria. The work provides an in-depth analysis of the key drivers, challenges, and outcomes of **cultural practices and environmental management in the country**

Keywords: *Practices, Culture, Environment, Wildlife, Conservation.*

The Trophy that Never Fed the Village: Unmasking the Myth of Community Benefits in Trophy Hunting

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Trophy hunting has long been justified as a conservation and development tool, underpinned by a utilitarian logic that the sacrifice of a few animals delivers widespread benefits. Advocates argue that revenues from hunting concessions provide critical funding for conservation

agencies while also supporting rural livelihoods in sub-Saharan Africa. Yet, empirical evidence from Tanzania reveals a profound disjuncture between this narrative and local realities. Drawing on mixed-methods research in the Selous Game Reserve, this paper demonstrates that despite generating substantial revenues, trophy hunting has delivered negligible benefits to adjacent communities while imposing significant costs, including restricted resource access, human-wildlife conflicts, and exclusion from decision-making. These findings expose the fragility of the utilitarian justification: rather than maximizing welfare, trophy hunting entrenches inequality and undermines community support for conservation. By unmasking the myth of community benefits, the paper calls for a paradigm shift toward alternative conservation financing models that ensure genuine community empowerment, equitable benefit-sharing, and long-term ecological sustainability.

Conservation at a Crossroad: Balancing Global Environmental Agendas with Local Rights in Nigeria

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*Kamil Adeyemi Hamzah, Emmanuel Alayande,
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Conservation initiatives in Nigeria have increasingly been influenced by global environmental agendas aimed at protecting biodiversity, mitigating climate change, and achieving sustainable development. However, these efforts often intersect with the rights, livelihoods, and sovereignty of local communities whose lands and resources constitute the basis for many conservation projects. This study interrogates the tensions between international conservation priorities and the lived realities of local populations in Nigeria, focusing on protected areas such as national parks, forest reserves, and community-managed ecosystems. Drawing on historical and contemporary evidence, it examines how

policies driven by global environmental frameworks sometimes lead to land dispossession, restricted access to traditional resources, and socio-economic dislocations for rural communities. Conversely, it highlights cases where community-led conservation initiatives align with both local development needs and global ecological objectives. Using a political ecology lens, the study explores how power relations, policy discourses, and governance structures shape conservation outcomes, often privileging global narratives over indigenous knowledge systems and local rights. The paper argues for a more inclusive conservation model that harmonizes global environmental goals with the economic and cultural rights of local people. Such an approach would integrate participatory governance, equitable benefit-sharing, and respect for local sovereignty as essential components of sustainable conservation in Nigeria. This present study, is therefore, concerned with making original contributions to our historical knowledge especially as it relates to the issue of global conservation environmental rights in colonial and post-colonial periods in Nigeria.

Held in Reserve, Continuing in Care: Maasai Reserves of Renewal and Conservation Justice Struggles

Jim Igoe, Department of Anthropology, University of Virginia

In August 2024, hundreds of Maasai people staged a direct-action protest, refusing government plans to remove them from their ancestral homelands in Tanzania's world-famous Ngorongoro Conservation Area (NCA). Their stand drew the eyes of international tourists on safari holiday and government officials alike, momentarily spotlighting injustices overshadowed by the spectacle of tourism and the prestige of World Heritage. Maasai people are not alone in these struggles. Indigenous and land-based communities worldwide are separated

from their ancestral lands by national parks, World Heritage sites, and conservation NGO interventions. **This is a common expression of conservation coloniality: the enduring spatial legacies of colonial regimes that bifurcated Indigenous homelands into nature reserves and native reserves. While originating in settler colonial contexts, the logic of these arrangements was exported to overseas colonies and continue in post-colonial contexts.** This spatial logic of conservation coloniality was especially consequential for Maasai communities, whose ancestors were targeted for containment in colonial native reserves—first in Kenya, then in Tanganyika (now Tanzania), following the North American model. British colonial administrators moved Maasai into designated native reserves in the early twentieth century, ostensibly to protect their cultural self-determination and territorial integrity. In practice, this profoundly disrupted pastoralist lifeways, restricting seasonal mobility and access to water and pasture essential for sustaining livestock herds. These restrictions intensified as the most productive parts of the reserve gave way to European settlement and, increasingly, the establishment of nature reserves that would become the basis of East African national parks and world-class tourist economy. In Tanganyika, vast conservation territories were excised directly from the Maasai Native Reserve, of which the NCA is a remnant territory. Negotiations over the potential compatibility and coexistence of Maasai lifeways with wildlife conservation figured prominently in late twentieth-century policy debates, with the NCA serving as their most visible and official proving ground. Recent declarations of the NCA as an exciting but failed experiment reflect an intensifying logic of elimination directed at pastoralist peoples in conservation areas. In steadfastly resisting this logic, the NCA protests and broader movements to decolonize conservation disrupt nature-native reserve logics by enacting relational accountability and intergenerational responsibilities. They answer ancestral obligations to defend land and tend to favored places of refuge and regeneration, including drought reserves, sacred places, and ceremonial grounds. These wellsprings of socio-spiritual-ecologies

sustain Maasai lifeways and livelihoods across generations (Dapash and Poole 2024). As such, they are the grounds of living Indigenous systems and possibilities for African environmental futures through continuing care.

Land Right, Livestock, and Living as Ancestors: The Foundation of African Environmental Futures

*Saitoti Parmelo, Pastoralist and Indigenous NGOs Forum (PINGOs) and
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As a pastoralist, lawyer, and organizer from a village on the boundary of Tarangire National Park, I speak from lived experience of how Western conservation disrupts African livelihoods. My family was evicted from Tarangire in the early 1970s, as the result of a broader legacy of colonial land laws and boundaries that continue to criminalize Maasai pastoral lifeways through evictions, accusations of trespass, and impoundment of herds. Much of my work revolves around researching and preparing legal arguments in an endless docket of land cases, documenting land rights violations, and educating Tanzanians and international allies about how colonial legal legacies continue to affect Maasai and other Indigenous communities. This work aims to secure land reparations and to decriminalize Indigenous lifeways and livelihoods. It is guided by the principle that land laws and conservation policies must respect Indigenous tenure systems and relationships that sustain these ways of life. It seeks to restore and promote Indigenous responsibility to land, which is the source of all life and relationships. Living up to this responsibility means renewing intergenerational practices and knowledge that sustain our collective continuance. Land rights are thus the basis of Maasai stewardship grounded in ancestral connections to Engai, the mother-creator, and Englishui, the breathing world of creation. Combining legal advocacy with intergenerational care, this

paper contributes an Afro-Indigenous perspective on the politics of conservation. It interrogates global frameworks that enclose African lands in the name of climate change and biodiversity goals, exposes how conservation reproduces colonial logics of criminality, and envisions futures grounded not in external prescriptions but in Indigenous systems of relational responsibility beyond conservation boundaries.

Ujamaa Community Resource: Amplifying Pastoral voices in conservation landscapes

Makko Paine, Ujamaa Community Resource Team (UCRT), Arusha, Tanzania

Across Africa, conservation has long been shaped by external agendas that often marginalized the voices of indigenous peoples and local communities. Yet, communities remain the custodians of many of the continent's most ecologically important landscapes. Nowhere is this tension more visible than in Northern Tanzania, where pastoralist and hunter-gatherer groups such as the Maasai, Hadza, and Akie coexist with globally significant ecosystems. Conservation initiatives in this region have brought both opportunities and challenges: while they can safeguard wildlife and habitats, they have also displaced communities, restricted traditional livelihoods, and sometimes deepened inequality. Amplifying African voices in conservation is therefore essential—not only to ensure social justice, but also to secure durable, inclusive environmental stewardship. The Ujamaa Community Resource Team (UCRT) provides a powerful case study of what authentic, community-based conservation can look like in Tanzania. For nearly three decades, UCRT has worked alongside marginalized groups to strengthen land rights, secure legal recognition of customary ownership, and promote natural resource governance rooted in local knowledge. By facilitating the establishment of Community-Based Forest Management areas, Wildlife Management

Areas, and Certificates of Customary Right of Occupancy, UCRT has helped pastoralist and hunter-gatherer communities protect vast tracts of rangeland and forest while sustaining their cultural and economic practices. This model demonstrates that conservation and community well-being are not opposing goals but mutually reinforcing when local people are given agency and authority. The impacts of UCRT's work are tangible. Communities that have secured collective land rights are better able to resist land grabs, negotiate with external investors, and sustainably manage grazing, water, and wildlife. In Hadzabe territories, legal recognition of ancestral forests has empowered communities to continue subsistence hunting and gathering, while simultaneously curbing deforestation and ensuring the persistence of critical carbon sinks. Among Maasai pastoralists, strengthened land tenure has safeguarded seasonal grazing corridors essential for both livestock and wildlife migrations, reducing conflict between conservation priorities and local livelihoods. Moreover, UCRT's inclusive approaches—especially its deliberate promotion of women's leadership in resource governance—have expanded participation in conservation decision-making, creating stronger and more equitable community institutions.

This case study from Northern Tanzania underscores a broader lesson for conservation practice across Africa: lasting ecological protection cannot be achieved without embedding the voices, rights, and priorities of local communities at the heart of conservation strategies. By aligning conservation with cultural survival and economic resilience, UCRT and its partner communities demonstrate a viable pathway that addresses both biodiversity loss and social justice. In highlighting African voices and experiences, particularly those of communities who live with and depend upon the land, Ujamaa's model/approach seeks to challenge conservation models that exclude or marginalize. The Northern Tanzanian experience offers compelling evidence that when conservation is community-driven, it not only sustains ecosystems but also strengthens the social fabric of the communities most invested in their future.

Politics of Environmental Conservation in South-western Nigeria, 1960-2019

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This paper examines the politics of environmental conservation in Southwestern Nigeria between 1960 and 2019, with a focus on the establishment, management, and transformation of national parks, game reserves, and forest ecosystems. It interrogates how political decisions, administrative policies, and governance structures have shaped conservation efforts in the post-independence era. Using historical and ecological approaches, the study highlights the role of key conservation sites such as Old Oyo National Park, Okomu National Park, and various state-controlled game reserves in preserving biodiversity and promoting environmental sustainability. The work explores the challenges confronting conservation in the region with specific focus on population pressure, deforestation, agricultural expansion, urbanization, and the persistent issue of insecurity and armed conflicts within protected areas. Incidences of poaching, illegal logging, and encroachment often exacerbated by political instability and weak enforcement mechanisms will be critically analyzed to reveal the complex interplay between environmental governance and socio-political realities Among the Yoruba ethnic group. The paper situates environmental conservation within the broader political ecology sustainability in South-Western Nigeria. It argues that there is need for ecological awareness through strong political will, community participation, and security reforms hence contributing to ongoing debates on the intersection of politics, conservation, and sustainable development in postcolonial African contexts. Though in Nigeria historical scholarship, this aspect of natural history has not been examined comprehensively.

Keywords: *Biodiversity, conservation, instability, climate change, environment*

Fortress Conservation and the Adjacent Communities' Coping Strategies in the South Western Serengeti

James Kuboja, University of Dar es Salaam

Conservation of wildlife resources in Africa has been largely shrouded with the fortress conservation approach despite the introduction of the community-based conservation approach in the 1980s. Numerous studies have revealed that from the colonial period to recent years, communities living in proximity to wildlife protected areas have been negatively affected by various conservation policies which largely ignore their livelihoods. Although these studies examined how communities responded to repressive conservation policies, they focused primarily on other types of responses and largely overlooked coping strategies or social adaptations. Using a historical approach and a case of communities in the western Serengeti, this study therefore aims to contribute this knowledge by examining the way adjacent communities have been coping with various conservation challenges and why they chose to cope with such challenges. The study is informed by archival data collected from various areas, including the Tanzania National Archive (TNA), the Dodoma Record Centre (DRC), the Maswa Game Reserve offices, Serengeti National Park and the Bariadi and Meatu district councils; oral information and secondary sources. Findings reveal that despite actively resisting against conservation policies, such communities have been coping with such challenges by changing hunting techniques, bribing game officials, using traditional land management systems (ngitili), changing their lifestyles, changing grazing strategies and many others.

Keywords: *Fortress conservation, coping strategies, social adaptation, southwestern Serengeti*

Digital Citizen Science, Data Justice and the Potential for a Decolonial Tropical Landscape Monitoring

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In tropical landscapes, digital citizen-science (DCS) initiatives are touted to decolonize landscape monitoring by facilitating local people's participation from tool design to interpretation and decision making. But such tools frequently contain implicit assumptions, regarding what counts as legitimate knowledge, who collects that knowledge and what should be measured, sometimes contradicting with Indigenous and local worldviews. Drawing on the planned fieldwork on DCS initiatives in Kilwa and Simanjiro districts, this paper examines how DCS initiatives shape the composition, control, access, processing and use of digitally monitored landscape data. It does so by reviewing the initiatives' documents, expert interviews, focus group discussions and participant observation to unpack what visible or hidden in terms of management practices, landscape's species and whose ways of knowing is considered or not. Further, it examines who sets the 'rules of the game' by highlighting the role of implementing NGOs, donor stipulations, and local communities so as to know who put the agendas, designs data protocols and decides how the data are shared. By assessing the channels (through which data flow, if they are accessible publicly and who can retrieve and benefit) as well as processing and using (by interrogating epistemic assumptions that guide how raw data are aggregated, filtered, and visualized). The paper establishes pathways for just and plural processes in the designing, governance, and interpretation of the digitally monitored landscape data, to facilitate the embedding of decolonial principles into DCS initiatives.

Keywords: *Digital Citizen-science, Data Justice, Tropical landscapes, Knowledge*

From Rhetoric to Reality: Forging a Sovereign and Inclusive Conservation Agenda for Africa

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Africa's biodiversity is a global asset facing severe threats, yet its conservation has historically been dictated by top-down, externally-designed models that often marginalize local communities. This legacy has created a rift between conservation goals and the socio-economic realities of African people. As the continent stands at an ecological crossroads, the sub-theme "*The future course for Africa's conservation agenda*" demands a critical re-evaluation and a decisive shift towards practices that are both effective and equitable. This presentation argues that Africa's conservation future must be radically reimagined, moving from peripheral consultation to central leadership by African communities. It aims to deconstruct the outdated «fortress conservation» paradigm and propose a new, sovereign framework built on the pillars of: the epistemic justice of legitimizing Indigenous Knowledge systems, devolved and community-led governance structures, and the creation of viable conservation-economy linkages that ensure local benefit. This argument is developed through a multi-pronged approach: a comparative analysis of community-based natural resource management (CBNRM) case studies in Southern and East Africa; a critical policy review of trans-boundary conservation initiatives; and the application of decolonial theory to envision alternatives rooted in African philosophies of interrelation and stewardship. The analysis demonstrates that while community-centric models show superior outcomes in sustainability and compliance, they are consistently hampered by systemic barriers. These include inequitable profit-sharing, insecure land tenure, and the persistent influence of international agendas that prioritize global over local value. Success is found where communities are not merely participants but are the primary architects, managers, and beneficiaries of conservation efforts. The definitive future for African conservation is one of **self-determination**. This paper concludes that a transformative

agenda must empower African communities as the primary authors and executors of conservation policy. It provides practical recommendations for embedding justice and inclusion into the core of conservation practice, ensuring it contributes to climate resilience, economic dignity, and cultural heritage. By championing truly African voices, this approach charts a course that protects ecosystems by empowering people, setting a new global standard for effective and ethical conservation.

Keywords: *Climate resilience, de-colonial theory, fortress conservation, trans-boundary conservation*

Seeing Like a Satellite, Knowing like a Pastoralist: Co-Producing Rangeland Health Assessments in Tanzania's Wildlife Management Areas

Esmée Mulder, University of Colorado Boulder

Guided by the Indigenous concept of Two-Eyed Seeing, which emphasizes learning to see from one eye with the strengths of Indigenous knowledges and from the other with the strengths of Western sciences, this paper explores how these perspectives can be braided together to monitor rangeland health in a community-based Wildlife Management Area in Northern Tanzania. While community-based conservation initiatives are expanding across East Africa, they often rely on “Western” ecological indicators that overlook Indigenous ways of understanding environmental change. For many Indigenous peoples, such efforts have been extractive, translating their knowledge into dominant scientific frameworks rather than valuing it on its own terms. Additionally, this data is commonly assessed, stored, and owned by outsiders. Working collaboratively with Maasai elders, women, and youth in the Enduimet Wildlife Management Area, this research assesses ecosystem health “through the eyes of the cow”, a pastoral lens grounded in relationships among people, livestock, wildlife, and land. Through

participatory mapping and joint interpretation of remote sensing data, we together identify both synergies and dissonances between geospatial and Indigenous indicators. The resulting framework suggests pathways toward more equitable, epistemically just approaches to rangeland monitoring. We will apply this framework to monitor several grazing areas, for which the data is analyzed, owned, and stored, by community members. Situating this work within broader debates on weaving knowledge systems and reconnecting humans and environments, the research advances a multi-epistemological model for assessing and managing protected and conserved areas.

Keywords: *Indigenous knowledge, Maasai, Wildlife Management Area, Tanzania*

Digital citizen science, data justice and the potential for a decolonial tropical landscape monitoring

Daniel Sifael, University of Dodoma

Digital citizen-science initiatives are hyped to decolonise forest monitoring, as they facilitate local people's participation in tool designing, data interpretation and decision-making. However, these processes often embed predefined assumptions about what data is worth collecting, how it should be collected, and which indicators are prioritized which raises concerns about the neutrality and inclusiveness of the resulting monitoring systems. There remains a relatively limited understanding regarding how power and politics shape data acquisition, storage and management within these initiatives. Informed by Pritchard et al. (2022) conservation data justice framework and grounded on selected digital citizen science initiatives in Tanzania, this article examines how these initiatives structure the composition, control, access, processing and use of digitally monitored tropical forest data. I reviewed the initiatives' documents, conducted expert interviews and

focus group discussions to explore these data justice elements. Firstly, data composition: unpacking what is visible or hidden in terms of forest management, landscapes' species and whose ways of knowing are considered or not. Secondly, data control: examining who sets rules of the game by highlighting roles of implementing NGOs, donor stipulations, and local communities, to know who designs data protocols and decides on data sharing procedures. Thirdly, data access: assessing channels through which data flows, whether they are accessible publicly and who can retrieve data and benefit. And fourthly, data processing and use: interrogating epistemic assumptions that guide how raw data are aggregated, filtered, and visualized. Generally, the study envisions pathways for just and plural processes in the designing, governance, and interpretation of digitally monitored landscape data, to enable embedding of decolonial possibilities into digital citizen science initiatives.

Conserving Academic Freedom in Africa

Muhidin Shangwe, University of Dar es Salaam

Research on conservation remains a sensitive topic in Africa. In many parts of the continent, globalized conservation efforts have come at the expense of the local rights, livelihoods and sovereignty – usually in the form of displacement. This, unfortunately is how conservation is widely understood and pushed, aptly described in the phrase “conservation without people”. As a result, conservation is increasingly becoming a source of conflict as affected communities resist to claim their rightful place in the ecosystem. On the one hand, this development has made conservation a security issue, providing justification for governments to weaponize it against any form of resistance by the people who are directly affected. On the other hand, it has also meant that researchers find it increasingly difficult to conduct scientific inquiry in affected communities, both for safety reasons and, more importantly, due

controlled access granted by authorities. This tendency has direct impact on academic freedom which in the context of conservation, involves freedom of researchers from learning institutions to conduct research in affected communities as well as freedom to disseminate findings without fear of persecution. This is however not the only problem with regards to academic freedom. Given the dominant narrative on conservation, significant funding has been channelled to promote the so called “pristine wilderness,” limiting resources for alternative research. The freedom to choose research topic thus comes with funding consequences, further undermining academic freedom.



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