

DECOLONISING SUSTAINABILITY: INDIGENOUS GOVERNANCE IN THE AGE OF THE ANTHROPOCENE

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Abstract: This article explores Indigenous Frafra onto-epistemologies within the ambit of a sustainable development policy framework that better captures the Anthropocene epoch. Frafra onto-epistemologies from northern Ghana and southern Burkina Faso profoundly shape how Indigenous peoples understand and relate to their environment. Their more-than-human entanglements include among other things beliefs, knowledge, and Ancestral practices that reflect a relational approach to life and the cosmos. The analysis presented here is based on an understanding of the concept of the Anthropocene as rejecting modernist ontologies and framings about a split between human and nature. It discusses respectively, the ways in which dominant forms of decolonial critique and epistemic plurality of environmental imaginaries problematise modernist sustainable frameworks and epistemic foundations that separate humans from nature in the Anthropocene as a universalising concept. In conclusion, I argue that the modernist ontologies of separation marginalise sustainability in a multiplicity of ways in the Anthropocene. It is further argued that Indigenous Frafra onto-epistemologies are a necessity if humanity is to survive the diverse ways humans perceive and interact with the Earth and cope with the unprecedented catastrophic ecological destruction largely driven by modernist, anthropocentric, and capitalist land relations.

Keywords: Anthropocene, Frafra, sustainable development, decoloniality, indigeneity, plurality of environmental imaginaries

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Introduction

The Anthropocene epoch in a highly uncertain world provoked by the great acceleration of human intervention represents a profound contemporary ecological crisis like never before (Chipato and Chandler 2022; United Nations 2020). Increased global ecological crisis hinder sustainable development and poses a major challenge for humanity in the new Anthropocene age (Chipato and Chandler 2022; Chandler and Pugh 2021). I critically examine the sustainable development policy framework in the Anthropocentric present (Chipato and Chandler 2023). The Anthropocene problematic has become an important component within the sustainable development policy framework concerned with addressing the global ecological crisis (United Nations 2020; Fu 2020; Chipato and Chandler 2022; Chandler 2022; Fu et al. 2021). Disciplines as diverse as climatology, geology, philosophy, and visual arts have adopted the Anthropocene as a new framework for understanding traditional sustainable narratives and planetary change (Chipato and Chandler 2022; Chandler and Pugh 2021; Harrington 2016). The imbrication of the Anthropocene and sustainable development policy framework have generated much debate among scholars and practitioners alike (Badie et al. 2022; Chandler 2022; Chandler and Pugh 2021; United Nations 2015). The Anthropocene serves as a contrapose to failed or failing Western modernist tropes of the universalism of security (Badie et al. 2022; Chandler 2022). The sustainable development policy framework and how it appropriates the Anthropocene entanglement on account of its claims to secure life of the biosphere has been widely discussed and debated (Chandler and Pugh 2021; United Nations 2015). However, Indigenous Frafra more-than-human onto-epistemologies and what this could mean for sustainable development narratives in the Anthropocene epoch remain strangely under-explored.

Onto-epistemology refers to a way of knowing (epistemology) and being (ontology) that recognises the interconnectedness and interdependence of humans; non-humans (animals, plants, rivers, mountains, spirits, the living-dead, Ancestors), and spiritual entities are co-constitutive of this reality. Indigenous Frafra more-than-human hybrid onto-epistemologies challenge the modernist dichotomy between nature and culture, offering a relational framework and holistic understanding of coexistence, interdependence, reciprocity and cooperation with the non-human world (Chipato and Chandler 2022). This relational and holistic framework for sustainability and resilience see mountains, rivers, forests, plants, Ancestors, and animals as active participants in existence and not just as passive resources. Hybrid onto-epistemology acknowledges both material and non-material worlds as

equally valid ways of knowing. This disrupts and subverts dominant Western sustainability frameworks that privilege empirical data over spiritual and embodied knowledge. Indigenous Frafra more-than-human hybrid onto-epistemologies challenge dominant Anthropocene discourses by breaking down hierarchical separations between human, non-human, and spiritual worlds.

The core concepts to be utilised in the article are: decoloniality and the plurality of environmental imaginaries, a tendency that destabilises and deconstructs the ontological and epistemological commitments of Western modernity (the limits of being and non-being). I posit that Indigenous Frafra more-than-human hybrid onto-epistemologies represent a more environmentally sustainable way to govern the world today. Unlike Western reductionist ontology, the Frafra relational framework and cosmologies involve humans, nature, spirits, and Ancestors. The Frafra relational ontologies understand humans, nature, animals, plants, rivers, mountains, spirits, and Ancestors as the primary source of vital force, reflecting a worldview deeply rooted in interdependence and reciprocity (Millar 2006). The aim of the article is to critique the prevailing sustainability approaches from the perspective of Frafra onto-epistemologies. From this perspective, the arguments are placed in context throughout with reference to the Frafra people of northern Ghana's more-than-human world in order to problematise Western rationalist paradigms that undergird sustainability frameworks in the Anthropocene epoch. This article poses the following central questions: to what extent can the Frafra onto-epistemology provide alternative insights into sustainability practices in the context of the Anthropocene? In what ways do various sustainability rationalities illuminate the political dynamics inherent in addressing Anthropocene-related challenges? This article offers to make sense of these pertinent and burning questions through an alternative African environmental thought within the Anthropocene entanglement.

The intention of this article is to make a call for engagement rather than generalising and essentialising the Frafra more-than-human onto-epistemologies. I move away from mere sweeping generalisations about Frafra, as Frafra people are not equally invested in ecological stewardship, mutuality, and cosmologies. The argument here avoids the risk to romanticise or idealise the Frafra more-than-human hybrid onto-epistemologies as there is no single form of existence that is common across the continent. Instead, I am interested in some of the tensions, delicate constant flux, and contradictions of traditions present in contemporary Frafra society. The

Indigenous peoples of northern Ghana may or may not share similarities to Indigenous peoples elsewhere in Africa or the rest of the world. Simply put, different ethnicities across the continent conceptualise the world differently and cannot be subsumed under “Indigenous peoples” in relation to how the Anthropocene is constructed to alternative ways of being. Crucially, the Frafra people are much more diverse in their beliefs, lifestyles, professional practices, traditional values, cultural practices, and access to wealth and opportunity. Grappling with onto-epistemology could be useful for meta-level critique of the narrow and technocratic conceptions of sustainability in the age of the Anthropocene. My point is that pluralism (heterogeneity and complexities) is what the Frafra Indigenous people of northern Ghana have to share with the rest of the world in the contemporary Anthropocene. This article contributes to an understanding of how the Frafra onto-epistemologies shape or could shape the contemporary environmental crisis in rethinking sustainability. Engaging with diverse traditions of ecological thought among the Frafra opens other possibilities for alternative futural imaginaries (Chipato and Chandler 2023; Haraway 2016). Additionally, it offers a new critical agenda for Indigenous studies and decolonial studies. In this way, this article will be of interest to policy makers, scholars, and critical theorists working in the environmental humanities or those engaged in studying and responding to the ongoing challenges so problematic in the Anthropocene politics and governance within International Relations.

The study in question is a review of the existing literature on the Frafra people utilising a qualitative research methodology that combines observational data and historical analysis, lending support to the dynamic nature of the study (Busetto et al. 2020). This approach is increasingly characteristic of case study research that allows for an in-depth exploration of a specific subject within its real-life context. By integrating these methods, this article aims to capture both contemporary dynamics and historical trajectories, offering a nuanced and holistic understanding of the Frafra community. The article is structured as follows. Following the introduction, I argue for an Indigenous African onto-epistemology approach to sustainability, working through the Frafra people of Ghana as a case study. It explains how adherence to spiritual beings, Ancestors, and Gods leads to more sustainable practices among the Frafra people. Next, I discuss the decolonial critique in Indigenous Studies; a decolonial critique destabilises the epistemological and ontological commitments of Western thought and opens the way for alternative perspectives that reject the separation between nature and culture, human and other-than-human. I highlight the literature review

on the Anthropocene and sustainability, largely by drawing upon critical scholarship on the Anthropocene and sustainability. I conclude by arguing that the Frafra multiple ways to be human enable a real possibility of surpassing planetary limits from which we could embrace the world in the Anthropocene.

Decolonial Critique of the Anthropocene

I engage with several decolonial critiques that shed light on different aspects of the problem and from very different perspectives. The present article is positioned within a decolonially informed critique of the Anthropocene that emphasises a relational engagement with Indigenous worldviews and practices of the Frafra, a society predominantly based in northern Ghana and southern Burkina Faso, as a foundational aspect of analysis. I consistently argue about decoloniality and critiquing in particular the nature/culture divide promoted by modernity. Therefore, I seek to problematise the sustainability policy frameworks. In so doing, I bring plurality and relationality in conversation with dominant forms of decolonial critique in order to challenge the universalising and Eurocentric narratives of the Anthropocene (Chipato and Chandler 2022; Haraway 2016). The Anthropocene problematic has become an important component within environmental discourse (Chandler 2023). However, from dominant forms of decolonial perspective, the Anthropocene tends to suggest a universal responsibility for global ecological crisis (Randazzo and Richter 2021). Dominant forms of decoloniality over the last decade have received much attention within the Anthropocene epoch and beyond (Escobar 2018). The dominant forms of decolonial critique seek to subvert the modernist colonial logic of the Anthropocene, particularly its framing of human-nature relationships and of the responsibility for a more sustainable future (Chipato and Chandler 2022; Haraway 2016). Contemporary theorisations of the Anthropocene privilege anthropocentric perspectives (McEwan 2021).

Decolonial scholars argue that the global environmental crisis cannot be understood without recognising how alternative ways of knowing and living of Indigenous peoples and marginalised communities have historically been dismissed and disregarded by coloniality (Mignolo and Walsh 2018; Escobar 2018; Shilliam 2021). The point of the foregoing is that the global environmental crisis cannot be understood without recognising the role of Eurocentrism and white supremacy. For decolonial thinkers,

the Anthropocene is a Eurocentric concept that overlooks knowledges of Indigenous peoples and how they have historically related to the environment/Earth. Western modernist assumptions and categories of the Anthropocene prioritise top-down, command and control governance that are deeply rooted in the ecological crises we face today. From a decolonial perspective, the Anthropocene is cohered around the insularity of Western modernist thought in driving a global catastrophic environmental crisis that continue to shape the Anthropocene epoch (De La Cadena 2010; Blaser 2009). The legacies of coloniality perpetuate epistemic violence with its destruction of and sheer disrespect for Indigenous knowledge systems, spirituality and replacement of Indigenous forms of governance and sustainable environmental practices. According to decolonial thinkers, the dominant narrative of the Anthropocene marginalises Indigenous knowledge systems and multiple ways of knowing and being. A decolonial critique of the Anthropocene argues that Indigenous and colonised peoples have historically practiced sustainable ways of living that are rooted in reciprocal relationships with land; this disavows and discredits dominant Western sustainability frameworks with its exploitative logics. Indigenous and colonised peoples' reciprocal relationships with their Earth have often been suppressed by Western modernist sustainable policy frameworks, and yet perhaps paradoxically, their knowledge and practices are often romanticised and exorcized in the Anthropocene thinking. Many Indigenous societies have historically sustained their own existence in ways that promote ecological stewardship and sustainability.

The decolonial critique of the Anthropocene also focuses on plurality and relationality (Raymond et al. 2018; Unks et al. 2021). In response to the modernist and colonial logic of the Anthropocene decolonial and Indigenous scholars have called for an alternative frame of the Anthropocene epoch that captures the plurality and relationality of environmental imaginaries (Rothe 2019; Tynan 2021). Broadly conceived, plurality and relationality relate to the understanding of environmental imaginaries that significantly influence multiple ways of relating to land (Tynan 2021). The plurality and relationality of environmental imaginaries of the Anthropocene emphasise the need for multiplicity. Multiple ways of knowing and being in relation to the environment allow for sustainability in multiple ways. In this sense, the plurality and relationality of environmental imaginaries present us with multiple "worlds" that coexist in complex relations of life and non-life forms (de la Cadena and Blaser 2018; Latour 2014, 2017). Multiple ways of being human enlarge our understanding of the diversity of cultural frameworks

that see human existence as deeply intertwined with land, plants, animals, spirits, and Ancestors. Foregrounding plurality and relationality as alternative frameworks enable us to capture human/non-human worlds in addressing the Anthropocene problematic and the crisis of modernity (Chipato and Chandler 2023; Chandler 2022). Also, as alternative frameworks plurality and relationality challenge and subvert the dominance of Western modernist categories (Odysseos 2017; Holbraad and Pedersen 2017; Law 2015).

They promote futural possibilities to think about the environment, rooted in diverse cultural and ecological philosophies and perspectives that are historically marginalised and suppressed by liberal modernity (Tynan 2021). Indigenous ecological philosophies and perspectives emphasise the notion of more-than human onto-epistemologies (Calí Tzay et al. 2023; Buitendijk et al. 2024; Tynan 2021). In other words, Indigenous onto-epistemologies resonate with plurality and relationality. Rather than Western universalism and a top-down narrative of the Anthropocene, a decolonial critique of the Anthropocene draws attention to Indigenous onto-epistemologies; Indigenous onto-epistemologies offer futural alternatives of ecological stewardship such as those found in Indigenous communities (Buitendijk et al. 2024). Indigenous peoples more-than-human onto-epistemologies recognise relationality, reciprocity, interconnectedness, and interdependence across animals, spirits, plants, rivers, Ancestors, and other non-human entities. These relational perspectives by Indigenous peoples reject and renounce the human/nature binary and offer non-linear ways of thinking about the contemporary environmental crisis. Put somewhat differently, Indigenous perspectives problematise and deconstruct modern binary imaginaries such as the human/nature divide in the Anthropocene (Chipato and Chandler 2023; Chandler 2022). Indigenous peoples onto-epistemologies re-imagine life in the Anthropocene, allowing for productive ways of developing non-modern futures beyond modernity (Rothe 2019). For Indigenous peoples, humans are part and parcel of a larger ecological society and they have an abiding cosmic responsibility to respect and protect the non-human world. Within this framework, Indigenous onto-epistemologies call for a rethinking of the dominant modernist understandings that impose knowledge production upon others, subjugating them or viewing them as illogical (Odysseos 2017). Frafra ways of thinking in this context, sustain important cultural identities, but at the same time are entangled with processes of environmental degradation and climate stress. They sustain their own existence through the enactment of other possible worlds, rendering visible onto-epistemology conflicts at play in modernist colonial

logics. The Frafra people conceive a world in which many worlds could coexist in relation to life and non-life forms. Indigenous worldviews offer an alternative to dominant paradigms, particularly regarding sustainability narratives. The author shares in the critique of how Indigenous worldviews challenge dominant binaries (e.g., nature/culture, subject/object, human/non-human).

Colonialism, Capitalism, Extractivism, and the Transformation of Frafra Onto-Epistemologies

Frafra onto-epistemologies are not separate from modernist sustainability thought. The onto-epistemologies of the Frafra people have been profoundly shaped by, intersected with, and challenged long histories of colonialism, capitalism, and extractivism. Frafra governance practices are not only resistant and resilient, but also continuously negotiated under pressure from dominant imposed structures and systems (Amo-Agyemang 2024). Exploring this entanglement offers a richer understanding of how colonialism, capitalism, and extractive regimes have historically disrupted and reconfigured onto-epistemologies of the Frafra people. Frafra cosmologies were dislocated by colonial rule; sacred ecological spaces were reconfigured as economic zones. The Frafra people traditionally conceive of ecological spaces not in instrumental terms, but through a sacral, ancestral ontology. Sacred ecological sites have been ontologically dispossessed and erased often through climate or development finance under the banner of progress. The ecological balance, deeply embedded in spiritual and relational ontologies, has been disrupted by extractive activities such as mining and commercial agriculture. The continuity of extractive colonial logics in contemporary neoliberal governance has had catastrophic consequences for Frafra ecological systems. The rise of gold mining has desecrated ancestral lands due to open-pit mining.

Communal responsibility and stewardship norms are further destabilised and eroded by capitalist logics of accumulation and expansion. Colonialism and capitalist logics of accumulation and expansion introduced new customary access to land, resource commodification, and centralised governance models that often undermined or co-opted Indigenous ways of knowing and being. The postcolonial period saw the intensification of capitalist development where land, which had previously been held in usufruct by lineage groups, increasingly became a commodity subject to speculation and enclosure (Anabila 2020). The Frafra ethic of redistribution and communal survival

clashed with the capitalist logic of individual accumulation. Land-based identity among the Frafra people is severely severed, largely due to the migration of youth to southern Ghana and mining zones as a dominant economic strategy. Colonial forestry laws introduced new survey and land registration systems that eroded collective stewardship. The decision-making and local leadership of Frafra people are grounded in cosmological balance and ancestral authority is distributed through a network of elders, earth priests (*tengandem*), and clan heads (Issahaku 2023). The British colonial regime imposed the indirect rule system, which appointed chiefs where decentralized, spiritual leadership (such as the Frafra *tengandem*) had been the norm. Colonial rule marginalised elders and ritual specialists in favour of chiefs who aligned with colonial administration; this disrupted subordinated cosmological authority to legal-bureaucratic power, and traditional governance structures included local voices in contradistinction to the bureaucratic governance structures (Ignatov 2017). The Frafra cosmological authority and traditional governance structures and their ways of knowing have been marginalised by education and modern employment, which are seen and promoted as escape routes from “primitive” subsistence life.

Frafra relational worldviews have been violently ruptured by the intrusion of colonialism, the entrenchment of capitalist rationality, and the expansion of extractivist frontiers. However, rather than framing this as a narrative of loss, Frafra onto-epistemologies persist; they do so in tension, sometimes defiantly with ongoing struggles for land, life, and sovereignty—and sometimes in adaptation to these imposed structures. Frafra onto-epistemologies have not disappeared despite these pressures. My point is that the Frafra worldview, cosmology, and traditional practices still exist despite the hostility of modernity, colonialism, and the expansion of extractivist frontiers with its impact on their relationship with the environment and their Ancestors (Awumbila et al. 2019). Surprising as it may sound, Frafra oral traditions, spiritual insights, and more-than-human world in many respects have survived despite attacks through long histories of colonialism, capitalism, and extractivism (Anabila 2020). The Frafra survival in the face of long histories of colonialism, capitalism, extractivism, and colonisation can be seen in their ritual practices, ecological knowledge, cultural identity, and resistance to assimilation.

Frafra elders, historians, poets, and storytellers continue to pass down Ancestral knowledge, cosmologies, and history through oral narratives despite colonial legacies and modern educational systems (Awedoba 2010). For example, sacred histories and ecological wisdom continue to guide Frafra

environmental ethics through the storytelling of Tengan Sob (Earth priests), local artists, and musicians (Ignatov 2017). There is continuity of Frafra Ancestral veneration reflecting the endurance of a spiritual worldview while also adapting to new socio-political realities within modern and globalised frameworks. Ancestral appeasement ceremonies remain crucially vital, even in communities with Christian or Islamic influence and even in those deeply influenced by modernity and globalisation. Cultural resistance movements and social groups among the Frafra people demonstrate their resilience against colonial, modernist, and global pressures, reinforcing the persistence of oral traditions, sacred sites, and spiritual practices. Frafra cosmology is a living political tool and an adaptive system of knowledge; not a relic, as the resurgence and community-led resistance to mining, reforestation efforts, and the reassertion of Indigenous leadership amply demonstrate. The call for the revalorisation of the relationality of Frafra environmental thought in the face of globalisation offers opportunities for epistemic pluralism and co-governance frameworks in climate governance. The emerging call for epistemic justice and co-governance frameworks urgently necessitates the creative recalibration of their cosmologies and governance structures. Frafra thought, rooted in relational ontologies, ecological ethics, sacred ways of being, and ancestral governance offers a viable option for the Anthropocene in contrast to the extractivist logic that views nature as inert and exploitable. Their different ways of knowing that offer ecological, ethical, and governance resources are better suited to the challenges of the Anthropocene than the dominant paradigms that have brought the world to its current crisis.

Frafra onto-epistemologies open space for reimagining sustainable futures and resilience. People beyond this part of Ghana can adopt or learn from Frafra ontological humility, which acknowledges that humans are not above or separate from other beings. Europeans, or perhaps Zulu or Maasai people can learn to accept that spirits, Ancestors, and unseen forces shape the world; and that not all truths are visible or measurable. The spirit of Frafra thought — sacred ecology — can inspire similar relationships in populations beyond the area of Frafra to protect green spaces or traditional ecological areas. Rather than merely adopting, populations beyond the area of Frafra can push for climate finance and land governance systems that respect the context-specific nature of knowledge. Frafra sustainability principles provide a critical purchase on what it means to live within the Anthropocene at a time when the certainties of the modernist world are becoming undone. Frafra thought can inspire a shift in worldview that recognises that adapting to the Anthropocene requires more than technology; it requires living more

justly, more wisely, and more gently in an era of planetary crisis, which Frafra cosmology offers.

Frafra people navigate multiple contradictions including land ownership, spirituality, governance, and environmental sustainability. They have to contend with the tensions between Indigenous traditions and external forces such as colonial legacies, modernisation, and globalization in their daily lives (Behrens 2017). Frafra people face ongoing contradictions between spiritual connections, humans, nature, and non-human entities in fostering ecological sustainability. Converted Frafra Christians or Muslims outrightly reject Indigenous spiritual practices as pagan or idolatrous. Similarly, some younger Frafra under pressure from globalisation, modernity, Christian and Islamic teachings have abandoned ritual sacrifices and ancestral reverence. Indigenous conservation ethics are embedded in rituals, oral traditions, and moral obligations to Ancestors, sustaining biodiversity. However, governmental support for economic growth through deforestation, mining, and modern agriculture degrades the land. While the *Tengan Sob* (Earth priest) and elders insist on forest preservation, some younger people cut trees for charcoal trade, leading to disputes over sustainability (Anabila 2020). As much as some traditions persist, others evolve, hybridise or come under severe threat in the face of globalisation and modernisation. In spite of the fact that Frafra onto-epistemologies and modernist interventions represent two distinct ways of knowing and being in the world, they can be made to resonate through respectful negotiation, mutual learning, and structural inclusion, not through assimilation. Modernist interventions can be contextualised by involving Frafra elders, spiritual custodians, and community knowledge holders in decision-making processes rather than relying on imposition or tokenistic co-option. For modernist interventions to truly rhyme with Frafra onto-epistemologies, they must embrace co-existence over domination, make space for ritual, morality, and spirit.

Indigenous Sustainability: Insights from Frafra Practices in the Anthropocene

A critical contextualisation of sustainability in the Anthropocene will centre on specific case studies of Frafra practices that embody distinctive environmental knowledge and adaptive practices. Geographically, the Frafra people, also known as Gorse, live in the northern parts of Ghana in the Upper East region and in and around the Bolgatanga part of southern Burkina Faso (Anabila 2020; Awedoba 2010), known for their rich cultural

heritage and deep connection to their environment. The Indigenous Frafra group encompasses four main sub-groups: Gurensi, Talensi, Nabdam, and Kusasi, each with distinct linguistic and cultural characteristics (Awedoba 2010). The Frafra language, also known as *Farefare* or *Guren*, is closely related to Mòoré, also known as Moshie or Moose, spoken by another major ethnic group in Burkina Faso. Central to Frafra beliefs is a supreme creator being, and each village has a shrine to this god. They are a minority group that have diverse subsistence practices for their livelihood, with about 79% living in dispersed settlements. Predominantly agrarian, the Frafra engage in activities such as small-scale farming, animal rearing, natural resources harvesting, and hunting, which are deeply intertwined with their social structures, cultural practices, and connections to the land and ecosystems (Ba-an et al. 2022). The Frafra linguistic, political, and economic rights have been historically marginalised and silenced, and denied any substantial participation in the economy. But why then focus on the Frafra? The Frafra community was selected because of their distinctive ecological knowledge and traditional practices in fostering resilience and sustainability. Their ecological knowledge and traditional practices offer valuable insights into sustainable ways of living and resilience in the face of environmental changes. Focusing on the Frafra people in discussions of contemporary sustainability discourse within the Anthropocene offers unique insights into the plurality and relationality of environmental imaginaries in shaping climate resilience and adaptability.

The Frafra case unsettles Western modernist logics of sustainability models by offering alternative perspectives rooted in more-than-human understanding of the world and relational ontologies. Their onto-epistemologies provide a unique lens through which to examine alternative approaches to environmental adaptation and climate resilience. Understanding and valuing Indigenous perspectives like those of the Frafra can illuminate the hybridity, complexity, or contradictions inherent in the concept of the Anthropocene. The Frafra more-than-human understanding of the world and relational ontologies would be part of plural ways of contributing to global efforts in addressing Anthropocene challenges through culturally sensitive and ecologically sound environmental practices. By examining the Frafra relational worldview of environmental imaginaries in terms of their interrelationships with animals, plants, rivers, mountains, nature, spirits, Ancestors, and other vital forces we gain valuable perspectives that frame their relationship with the environment (Ba-an et al. 2022). Their practices, livelihood, culture, belief systems, and ancestral traditions highlight the

importance of integrating adaptive strategies and Indigenous knowledge systems when exploring sustainability in the Anthropocene. Frafra strategies exhibit both similarities and differences when compared to neighbouring communities. Even though the Akan people of Ghana also emphasise an integration of spiritual and environmental stewardship in their approaches to environmental adaptation and climate resilience, Frafra approaches are notably distinct. The Frafra resilience reflects a unique blend of spiritual beliefs and practical adaptation strategies, deeply rooted in a mythical worldview that assigns environmental management responsibilities to resourceful gods and Ancestors. Other regional communities in contrast may prioritise different aspects of resilience. For instance, environmental adaptation and climate resilience narratives of Akan people are deeply embedded in cultural narratives, spiritual beliefs, and adaptive practices which, while effective, differ in focus from the Frafra synthesis of spiritual and environmental stewardship. Studying the Frafra perspectives provides lessons that may inform broader regional and global environmental sustainability efforts, offering valuable insights into how Indigenous communities can navigate the complexities of climate change in the age of the Anthropocene.

Frafra Onto-Epistemologies: Pluralising Possibilities and Multiplicities

Frafra more-than-human onto-epistemologies are embedded in relationality, coexistence, interdependence, and reciprocity with the non-human world. This challenges modernist sustainability models, often rooted in Western modernist Cartesian dualism that separates humans from nature. The Frafra communities of northern Ghana Indigenous belief systems and onto-epistemologies emphasise a harmonious relationship with nature. They engage in various environmental practices deeply rooted in their relational worldview. Their harmonious relationship with nature influences how Frafra people make decisions about land use, conservation, and resource management (Ba-an et al. 2022). Their environmental stewardship involves recognising the environment as a sentient being: a complex cosmological dynamic that encompasses interconnectedness between human beings and the non-human world (Ignatov 2023). The Frafra people's environmental ethics are deeply intertwined with their spiritual beliefs and practices. In this way, Frafra cosmology views the spiritual and the physical as deeply interwoven (Amenga-Etego 2016). The essence of the relational entangled existence of the Frafra people is precisely how nature, animals, trees,

deities, rivers, spirits, Ancestors, and human beings intimately depend on each other. They promote the sustainable use and preservation of natural resources by venerating spiritual beings and adhering to traditional customs. This worldview provides a futural alternative for more-than-human ethics as well as mutual responsibility and ecological stewardship in sharp contrast to reductionist sustainability frameworks that tend to focus on how humans use and conserve nature in the Anthropocene epoch. The Frafra more-than-human mutual responsibility, ethics, and ecological stewardship are a cosmic and spiritual obligation toward the well-being of non-human entities (trees, rivers, animals, the Land, deities, the spirits, and the Ancestors) in fostering sustainability (Ignatov 2023).

To illustrate, those who violate sacred Lands are punished by the Frafra Earth priest, elders and chiefs, enforcing an ethical relationship between humans and the Land (Ba-an et al. 2022). The Earth priest, elders and chiefs govern Land as a living entity with spiritual and moral obligations not as property or a commodity. Sacred Lands in Frafra cosmology are not mere economic resources but spiritual agents that demand ethical reciprocity. This system of governance, that centres ethical reciprocity with nature, challenges modern bureaucratic conservation policies and extends beyond the limitations of conventional sustainability within modernist thought. Traditional sustainability narratives focus on Land as a property or a commodity but woefully fails to capture Land as an ancestral inheritance within the Frafra ontologies. Frafra ontologies reject the dominant Anthropocene discourse, which often centres human agency while ignoring Indigenous worldviews. The anthropocentric worldview focuses on the excessive valuing of humans to the detriment of the environment (Wiredu 1994; Ignatov 2023). The Frafra people see themselves as one among many of the entities of the natural environment and other ecosystems, making sustainability a lived practice rather than an abstract theory. This perspective eschews and deconstructs Western anthropocentrism about the human-nature binary. The Frafra Indigenous ecological knowledge and sustainable practices that recognise the significance of diversity of natural environment and other ecosystems (Millar 2006) move beyond Eurocentric paradigms that commodify Indigenous ecological knowledge.

The Frafra plural ways of knowing and being and relating speak of the veneration of Ancestors (*yan'duma*). The Frafra more-than-human relationality involves a connection with Ancestors (*yan'duma*) who are believed to govern the forces of nature. For them, sustainability is not merely about humans but also essentially about Ancestors. The Ancestors

(*yan'duma*) are believed to be the moral custodians of the group/clan or the family. Within Frafra ontologies, Ancestors are at the apex of the hierarchy (Amenga-Etego 2016). In fact, Ancestorhood forms an essential inter-and intra-connectedness with the *Win* (God) (Amenga-Etego 2016; Millar 2006). The veneration of Ancestors among the Frafra provides valuable insights for deeply interconnected interrelationships with their environment (Awumbila et al. 2017). The Frafra people's adherence to Ancestors significantly influences their environmental conservation practices, fostering sustainability through several mechanisms. The strict moral code attached to Ancestorhood in Frafra Indigenous thought fosters a more equitable and sustainable relationship with the Earth (Amenga-Etego 2016; Ignatov 2023). They maintain harmony with ancestral spirits by engaging in sustainable practices that respect and preserve the environment. Their belief in the continued existence of Ancestors in the spiritual realm instils a deep sense of responsibility among the Frafra to preserve the environment and natural resources. They maintain an ecological balance and ensure the well-being of both their community and the environment by honouring their ancestors through the sustainable stewardship of natural resources. Ancestorcentrism within the Frafra way of life is rooted in their spiritual wisdom, oral traditions, customs, and ecological knowledge that understand the environment as alive and sacred (Amenga-Etego 2016; Ignatov 2023). As such in Frafra cosmology, society and the natural environment are seen as a living partner. Interestingly, traditional sustainability conservation policies fail to see the non-dualistic conception of nature and the environment of the Frafra in times of crisis.

The Frafra maintain sacred groves believed to be inhabited by spirits or deities. They understand the environment as inhabited by Ancestral spirits in specific places such as sacred groves, rivers, trees, and mountains. These sites are protected from exploitation, serving as reservoirs for various plant and animal species, leading to the preservation of biodiversity. This Frafra cosmology shapes their relationship with these areas and informs their ways of life which are geared towards ensuring that sacred groves, rivers, trees, and mountains are prevented from environmental destruction (Amenga-Etego 2012). Sacred groves in Frafra communities are Ancestral and spiritual domains where destruction is both an ecological and moral offence as opposed to being simply protected areas in traditional sustainability frameworks. The prohibition of activities like hunting, farming, polluting, and logging within these groves ensures the conservation of critical habitats. Polluting, logging, hunting or cutting down and farming in sacred groves

trees could invite the anger or the wrath of Ancestors (Ignatov 2017; Millar 2006), reinforcing the intimate relationship between the Land and Ancestors (Millar 2006). This deeply interconnected relationship shows how human actions are ethically bound to the well-being of non-human entities. In the Frafra worldview, trees and animal species are intricately interconnected with those of humans (Amenga-Etego 2016). The deep interconnection and interconnectedness with the natural environment and human life is informed by an adherence to Ancestral prescriptions such as protective taboos against harming totemic species (Ignatov 2017). Totemism among the Frafra people is associated with Ancestral spirits, wherein certain animal species or plants are revered as emblems of clans or families. The Ancestral-plants spiritual relationship illustrates how the Frafra Ancestral spirits may inhabit a plant (tree) or how some plants serve as Ancestral spirits abodes (Amenga-Etego 2012; Ignatov 2023).

The veneration and reverence of trees and plants depend largely on whether or not they are female or male ancestral spirits (Amenga-Etego 2012). The names of Frafra Ancestral spirits reflect both genders, with a female ancestral spirit bearing the name *ma'yaba* (Ancestress), and a male Ancestral spirit is referred to as *cho-yaba* (Ancestor) (Amenga-Etego 2012; Awedoba 2010). Fig trees and baobab trees are typical examples of this phenomenon (Ignatov 2017). Within Frafra thought, fig trees and baobab trees are believed to be *ma'yaba* (female Ancestral spirits). To them, the natural environment feels pain and complains. Their tall trees feel pain and cry when burned and logged. Historically, when the forest Land was young, their Ancestral spirits and deities changed into animals, trees, and other beings (Metz 2019). In this way, animal species and trees must be protected from human activities, enabling a broader concern for the environment itself. This cultural practice to protect animal species and trees from human activities helps maintain ecological balance, protect genetic diversity, and preserve native flora and fauna which significantly contributes to environmental sustainability.

Certain trees considered sacred and spiritually significant are threatened by pressures of commercial logging due to a combination of economic, legal, and cultural pressures. Rather than seeing trees as beings with spiritual or Ancestral significance, the marauding logging industry views trees primarily as economic resources for profit. The logging industry ignores the cosmological roles of sacred trees such as baobabs or shea trees targeted for their commercial value. The Ghanaian state licenses, or corporate backing that override customary governance structures, weaken Indigenous control over sacred landscapes and erode the norms that protect them. Logging

and modernisation have turned trees into just another commodity in the landscape. Therefore, tree veneration becomes a casualty of economic survival strategies in a neo-liberal economy as trees lose their spiritual or ancestral significance. There are interesting areas of resonance and tension regarding modernist notions of carbon capture and Frafra practices such as tree veneration that offer possibilities for rethinking sustainability and deeper dialogue. While modernist notions of carbon capture and Frafra practices like tree veneration both centre on trees, they do so through radically different ontologies. Modernist notions of carbon capture and Frafra tree veneration value trees in sustaining life and stabilizing climate. They both share an ethical commitment to forest preservation and cutting trees indiscriminately, although the reasons differ in purpose, ethics, and worldview; veneration protects trees through ritual, taboo, and sacred status, while modern carbon markets value trees for climate mitigation. Modernist notions of carbon capture emanate from an economic calculus —means to an end (e.g., carbon credits), while tree veneration from Frafra cosmology springs from spiritual ethics (trees are kin, Ancestors, or sacred entities, not commodities). Both frameworks acknowledge tree planting and forest conservation as can be seen through programs like REDD+ and carbon offset schemes. Both frameworks may appear to belong to vastly different paradigms, they recognise the central ecological role of trees in maintaining cosmological balance through carbon sequestration spiritual relationality. In decolonising environmental governance and fostering truly equitable climate solutions, it is essential to understand this rhyme and its dissonance. There is an urgent need for a more dialogical and decolonial approach to sustainability and policy-making. Climate adaptation infrastructure like seawalls and forestry would be more effective if the Ghanaian state were to seriously engage with Frafra cosmologies, epistemologies, and environmental ethics. If the Ghanaian state would take Frafra views on hard infrastructure such as seawalls to combat coastal erosion and sea level rise seriously – not as folklore, or as cultural heritage but as serious knowledge, as systems of meaning, ethics, and environmental design – the project might begin with ritual consultations with the sea, rather than just environmental impact assessments. In a climate adaptation process in which local elders, diviners, and farmers are not “stakeholders” but epistemic authorities, adaptation could focus on creating buffer zones that align with cosmological insights about sacred boundaries. Designing multi-epistemic policy spaces, where different ontologies can sit in tension, not hierarchy, would be a more dialogical approach in dealing with climate adaptation infrastructure like seawalls and forestry. If the Ghanaian state were to take Frafra views

seriously, rather than not symbolically, it would initiate a new conversation in which spirits, elders, engineers, and Ancestors are recognised at the same table, shaping a plural, ethical, and context-responsive future.

The adherence to Ancestral prescriptions regarding protective taboos against harming totemic species pays attention to issues of environmental sustainability (Eze 2017). The reverence for forest patches by the Frafra people ensures the availability of essential medicinal plants used in traditional healing practices. Traditional prohibitions against exploiting plant species contribute to climate change mitigation because plants act as carbon sinks by absorbing carbon dioxide from the atmosphere. Farming, fishing, or hunting activities are forbidden on certain days. The community enforces these strict taboos in order to allow ecosystems to regenerate and prevent the overexploitation of resources. The Frafra ecological well-being of the non-human world fosters a profound respect for nature, shifting the focus from preservation to responsibility and reciprocity. Their more-than-human framework not only preserves biodiversity but also expands our understanding of the role of Indigenous spirituality in environmental sustainability beyond Western conservation models and environmental thought. The Frafra mutual existence among trees and animal species goes beyond the Anthropocentric worldview focused on human exceptionalism.

The Frafra spirituality and ecological practices are embedded in an environmentally sustainable outlook that constructs and maintains their natural world. Their relational framework about the natural world is embedded in the supranatural world. In this way, their approach to sustainability is through spiritual practices, rituals, and oral traditions rather than Western scientific rationality. Frafra spiritual practices, oral traditions, and rituals exemplify an Indigenous approach to sustainability, intricately intertwined with cultural practices with environmental conservation. Spiritual practices and rituals emphasise the need for the well-being and sanctity of society and the environment (Ignatov 2023). In this respect, the Frafra belief in spiritual ecology fundamentally challenges anthropocentric and rationalist foundations upon which modern sustainability frameworks are built; the belief in spiritual ecology resists reductionist sustainability models that ignore spiritual and ontological relationalities. The belief in the supranatural world shapes their relationship with the Land and the ecology in times of planetary crisis. For them, the natural environment is alive with spiritual forces, influencing the manner in which they interact with the natural environment; seeing the environment itself as a living and sacred entity that must be respected and engaged with in reciprocal and

respectful ways. Land, animals, stars, moon, sun, cloud, plants, rivers, trees, soil, humans, and spirits constitute a living system that sustain and guide the Frafra life (Ignatov 2017). Trees, animals, stars, moon, sun, cloud, plants, soil, humans, spirits, rivers, and mountains inhabiting the Land deserve to be respected, protected, and preserved by humanity not only for the sake of its own survival but importantly as a spiritual responsibility to Ancestors and the spirits of the Earth (Ignatov 2023). The spiritual elements in the Frafra people expect environmental carefulness and the sustainable use of natural resources (Amenga-Etego 2012). This forces them to develop more effective sustainable practices in order to control the well-being of the Land/environment as opposed to a universal, top-down, and one-size-fits-all concept that generalise a culturally specific vision of sustainable development in the Anthropocene.

Their environmental resilience practices and belief systems resist universalised sustainability models. The Frafra environmental resilience practices and belief system are place-based and context-specific. The Frafra cosmology, that views the spiritual and physical realms as inseparable, presents sustainable and interconnected ways of life in the Anthropocene in constitution of new ones. Their ways of knowing are diametrically different from the Eurocentric way of knowing, which is largely based on the separation of the observer and the observed world. Western modernist sustainability assumptions do not value seeing from a connection with the supranatural world. Western modernist thought about seeing from a connection with the supranatural world occurs from the first-person perspective. Persons who see from a connection with the supranatural world are persons with special qualities and positions in Frafra society. For example, Frafra communities may consult diviners or elders in times of drought to understand the ecological imbalance by communicating with Ancestral spirits (Amenga-Etego 2012), instead of relying solely on modern climate data and metrics. Frafra environmental ethics rooted in spiritual reverence, communal responsibility, and traditional regulations offer alternative conservation models in the Anthropocene epoch. Their alternative conservation models promoting environmental sustainability reject traditional sustainability frameworks that are often technocratic and rely on data-driven solutions.

Frafra notions of *Win* (God), *neri-sala* (human beings), and *tingazuo/tingongo* (Earth/environment) allow for a nuanced perspective on how the Frafra ecological knowledge could be and has been appropriated for the perpetuation and sustenance of the environment in the Anthropocene era (Ignatov 2017; Awedoba 2014). Within the Frafra schema and

hierarchy, *Win* is the creator of the world (God the Supreme Being). The Frafra people place *Win* at the centre of all existence. Central to Frafra ontology is the belief that the environment and everything in it was created by *Win* (God the Supreme Being); this establishes a profound sense of interconnectedness between humans, nature, and the spiritual realm (Awedoba 2010). Frafra ontological realities that view God as an integral part of the natural world inform their environmental practices and resilience strategies. Their ontological framework, characterised by a deep sense of interconnectedness, at once emphasises respect for nature and the importance of responsible environmental stewardship and communal values shape their understanding of sustainability. Frafra cosmology, which perceives God (*Win*) as the Creator and Sustainer of the universe, including the natural world, fosters a sense of responsibility towards the environment (Ignatov 2023). To them, the environment is a gift from God to be cherished and protected, rather than be destroyed. Frafra religious beliefs often highlight the interconnectedness between God *yan'duma* (Ancestors) and the *baga* (divinities). Beneath *Win* (God the Supreme Being) are *yan'duma* (Ancestors) and the *baga* (divinities), which comprise spiritual entities such as ghosts, dwarfs, and witchcraft spirits (Ignatov 2017; Awedoba 2010). Frafra notions of interconnectedness and interdependence are rooted in the belief that human actions have consequences for the natural world and are seen as a way of honouring God. Within the Frafra hierarchy, the rest of nature and human beings are connected to *Win* (God) the creator of the universe on whom they rely for their sustenance (Amenga-Etego 2011). The Frafra worldview within the complex web of interdependence and interconnectedness ensures the continuous stay of *Win* (God) who created the universe (Awedoba 2010). Their traditional practices such as rotational farming, forest protection, and water conservation reflect a deep-seated respect for the natural world and provide a framework for sustainability that is holistic and culturally grounded, particularly in the context of the Anthropocene. The Frafra perspective, emphasising respect for nature and the importance of responsible environmental stewardship and communal values, is an invitation to think differently about conventional Western sustainability models, advocating for the inclusion of diverse worldviews and ontologies in a global sustainability discourse. It is imperative to examine the role of cosmology, ritual stewardship, and more-than-human relations in shaping ecological practice in order to understand how sustainability is conceived and enacted in this context.

Spiritual Entities in Nature

In Frafra thought, spiritual entities in nature are believed to relate to their places of abode. The stewardship of Land and the *tindana*, custodian of sacred traditions, connect the Frafra people to their Ancestors. The *tindana* ensures that there are mechanisms for resource utilisation by performing annual rituals in order to appease Ancestors for the reckless use of ecological resources by the community (Awedoba 2010). Rituals are performed by the *tindana* to assuage the displeasure of the Earth spirit, reflecting a reciprocal relationship with nature (Anabila 2020; Awedoba 2010). This notion of the ancestral ownership of Land within the Frafra traditions of thought motivates ecological stewardship and the responsible utilisation of natural resources and thus excludes individualistic conceptions of private property championed by predatory market capitalism (Ignatov 2017). While Frafra knowledge sees rituals to appease Ancestors as an important part of the ecological balance, Western sustainability models often ignore rituals and belief systems and spiritual interventions. The Frafra notion of *baga* (divinities) is one of the entities bound up in the Frafra hierarchy of relations (Anabila 2020). Their belief systems indicate interdependence and interconnectedness with *baga* (divinities). In order to secure ecological well-being and promote sustainable ways of living, Frafra society makes sure that plant *baga* (divinities) are not eaten even though they are edible (Millar 2006). The Frafra of northern Ghana ecological knowledge and the intimate interconnectedness with their environment relates to healing and food taboos or injunction in terms of divinities (Anabila 2020). The Frafra people have the responsibility in nurturing plants, forest, or water divinities because they are an integral part of the interconnected ecosystem (Ignatov 2023). The notion of *baga* enables them to have sustainable use of the ecology. This is grounded in their choice of harvesting a tree, fuel wood, where to fetch water, or where to dump specific types of household waste (Ignatov 2017; Anabila 2020). This ontological belief either at the individual level or at the community level is governed by the necessity for the sustainable management of resources and the judicial balance of what nature supplies with human demand. *Baga* divinities are seen as guardians and nurturers of the forest, which bestow life and vitality to all beings (Awumbila et al 2017). In this context, the Frafra interdependence and interconnectedness with divinities is a counter discourse to the animist conception of Land in the dominant Western sustainability frameworks.

The Frafra struggle to keep the forest Lands is intended to reduce carbon emissions and deforestation, and to conserve biodiversity (Anabila 2020).

The forest Land for the Frafra people provide sanctuary for humans, water, animals, plants, spirits, and other beings to coexist and interact. Their struggle to keep the forest Lands is driven by a desire to ensure a sustainable living in the Anthropocene. For this reason, the forest Land in the Frafra world transcends its existence as a mere living entity. The Frafra people preserve their forest cover and biodiversity in order to avoid deforestation outside their boundaries (Liu 2017). They protect their forest Land in order to honour Ancestral spirits (Anabila 2020), and in so doing, contribute to spiritual accountability and the social fabric of environmental adaptation rather than purely reductionist, mechanistic problem-solving and market-driven conservation (e.g., carbon credits, eco-tourism, private conservation efforts). The Frafra struggle to keep forest Lands in order to live their lives in the Anthropocene epoch is a spiritual and moral imperative that destabilises and deconstructs a dimension of sustainability understandings of reducing carbon emissions (Manzini 2019). In Frafra cosmology, thunder, winds, rain, storms, day and night, the sun, moon, and stars are essentially interconnected guardians of life that sustain the resources required for survival. The forces of cosmological order are vitally important in offsetting carbon emissions and enhance carbon sink (Manzini 2019). This approach is conspicuously absent in most modernist sustainability models in the contemporary Anthropocene. The Frafra conceptualization of Land challenges the absurdly reductionist tendencies of dominant Western sustainability models that often reduce Land to a mere resource, commodity or economic unit. In the worldview of the Frafra, Land cannot be reduced to market value because it is a living, relational entity with deep spiritual and Ancestral significance that cannot be displaced by human activity (Awumbila et al. 2017).

Cosmology, Climate Resilience, and More-than-Human Relations

How the Frafra adapt to climate resilience involves supernatural control and care for rivers, forests, and animals who are believed to hold independent souls and interact with people (Anabila 2020). Therefore, the Frafra approach sees resilience as deeply relational and a spiritual continuity in contrast to the mainstream sustainability that focuses on technological adaptation and policy-driven resilience. The cosmological and ethical resilience model of the Frafra people involves consulting the spirits and performing rituals (Ignatov 2023). Hunting, planting, farming, and harvesting are daily activities that are directly controlled by supernatural spirits. They observe and master the non-human world through objective knowledge. Thus, the Frafra interact with supernatural

spirits through learning from ancestral wisdom, rituals, storytelling, and oral traditions (Millar 2006). They get their names from animals and rivers because they believe that animals and rivers have spirits (Anabila 2020). Their treatment and interaction with animals, trees, rivers, and other entities as humans are very much in consonance with the notion of the contemporary Anthropocene. In fact, animals and other entities are considered by the Frafra as other kinds of “folks” with their own agency. Other kinds of “folks” live in their societies just like human entities do, demonstrating a governance system where other entities have spiritual and legal personhood. By recognising other entities as other kinds of “folks,” the Frafra more-than-human entanglement challenges the Western ontological bias that insists on a rigid human/non-human divide. By acknowledging non-humans as kin, agents, and co-creators, Frafra ontologies redefine what it means to exist and relate.

The construction and maintenance of environmentally conscious seawalls provide protection from storm surges and tidal forces, while aiming to hold or prevent sliding of the soil (UNFCCC 1999). Seawalls form a defining line between the sea and the Frafra Land in order to ensure no further erosion will occur, encouraging practices that support environmental sustainability. The Frafra people are environmentally conscious and seawalls lead to more sustainability by providing habitats for coastal and marine life and critical ecosystems such as mangroves, wetlands, coastal forests, marshlands, and sandy beaches that would otherwise be submerged. Their seawalls create a more adaptive and responsive solution to environmental resilience in catastrophic circumstances (Anabila 2020); The Frafra people seawalls act as carbon sinks, helping to mitigate climate change, safeguarding and protecting the livelihoods of communities, homes, and cultural sites from erosion and flooding. Seawalls safeguard human settlements and natural landscapes, contribute to the long-term viability of coastal communities, and reduce environmental impact. Seawalls provide a resilient solution to evolving climate change challenges by accommodating the projected sea-level rise and increased storm intensity ensuring the long-term sustainability of coastal areas (Ignatov 2017). This adaptability supports the sustainability of coastal protection measures over time and potentially enhances and boosts local biodiversity that often is crucial for the survival and well-being of Indigenous communities. The building of seawalls by the Frafra people of northern Ghana pushes for sustainable ways of living in the Anthropocene epoch, rather than simply reinforcing walls.

Their sustainable development practices help balance ecological preservation by ensuring that coastal regions remain vibrant and habitable for future generations. Integrating different dimensions of sustainability frameworks

through prioritising anthropogenic interventions, the Frafra more-than-human ethic ensures harmony between human and non-human forces (Liu 2017). To be sure, prioritising anthropogenic interventions enables the long-term coexistence between human activities and the environment. The Frafra seawalls are expressions of an integrated, relational, and spiritual wisdom in which water, environment, and spirits are seen as interconnected. Their design of seawalls inflects a more-than-human entanglement that integrates ecological, spiritual, and communal dimensions; this perspective extends modernist sustainability frameworks that emphasise hydrological models, risk assessments, and economic cost-benefit analyses. Building seawalls is part of a broader cosmological and ecological relationship, including sacrificial ritual and communal responsibility in order to honour ancestral spirits believed to mediate environmental balance, rather than just barriers against water. More than just barriers, the construction and maintenance of environmentally conscious seawalls transform into assets that protect both people and nature. The ethical Land and water relations among the Frafra rely on Ancestral ethics and reject modernist sustainability market-based water management.

The seawalls built by the Frafra involve ritual bunds, protective shrines, or sacred earthworks in order to appease spirits, protect sacred Land, and maintain cosmological balance, while the Ghanaian state engages in building seawalls for tourism or economic development. Engineering rationalities, cost-benefit analyses, and environmental modelling typically inform why the Ghanaian state builds seawalls. Frafra seawalls are about their ontologies and epistemologies. While the Frafra and Ghanaian state seawalls structures deal with the threat of water, they come from radically different relationships to Land, water, and knowledge. The seawall becomes an object, not a subject of ritual or reverence when the state imposes or substitutes its infrastructure. The spiritual and relational dimensions are flattened if the state proceeds with seawall projects without regard for Frafra epistemologies. The two onto-epistemologies would rhyme if construction begins with rituals and dialogue, not just bulldozers. Rhyming these two onto-epistemologies requires the recognition of seawalls not just as a structure but as a boundary of relationship—between water, people, spirits, and futures. It calls for onto-political respect, processes of co-creation, and aligning the wall's form and orientation with ancestral pathways or taboos known to local knowledge holders. Training engineers, planners, and politicians in ontological pluralism—not just technical skills—would challenge the dominance of Euro-modernist frameworks in Ghanaian development discourse and open up radical new imaginaries for what sustainability can mean on this land.

Toward a Decolonial Sustainability Framework

Frafra Indigenous knowledge offers a deeper, more embodied, and decolonial approach to environmental resilience in the Anthropocene era by reconfiguring relationships between humans, environment, and water. Rather than merely adjusting human activities to mitigate harm, the Frafra worldview offers a deeply relational, spiritual, and ethical approach to environmental stewardship (Amo-Agyemang 2024). The understanding of the natural environment and the intricacies of the spiritual world, based on the principle of reciprocity and relationality, is anchored on the non-anthropocentric philosophy of the Frafra people (Liu 2017). Their care, respect, and gratitude for the environment constitute our multiple worlds. The multiple ways of being and knowing of Frafra people in the Anthropocene invite modern environmental thinkers to acknowledge their ontological blind spots and perhaps more importantly listen to the Ancestors. Multiplicity of ways in the sustainability offers a relational way of engaging with the Anthropocene, and promotes a range of alternative futural possibilities for thinking and acting in the face of ecological crisis. Rejecting and refusing the modernist imaginary binary of nature/culture and human/non-human world, the Frafra onto-epistemology offers a novel understanding of human existence in terms of interconnectedness and relatedness (Liu 2017). Human beings/natural beings are inherently and intrinsically connected to each other and underly the values that bind the Frafra people (Manzini 2019). In this way, Frafra perspectives demand a fundamental rethinking of an intricate web of interconnectedness with various natural beings and forces that disavow and directly contrapose modernist sustainability frameworks; the Frafra worldview underscores the need for ecological diversity in the contemporary Anthropocene (Escobar 2016; Inoue and Moreira 2016). The Frafra mutual interrelationship and interconnectedness between non-humans, various natural beings, and the environment affirm and extend the Frafra people's humanity (Ignatov 2014). Indeed, nature-society dichotomous distinctions and hierarchies make no sense to the Frafra people.

Mutual respect and conviviality with the environment within which human existence unfolds provide us with insights into the broader Indigenous environmental thought that exemplifies an expression of decolonisation and living otherwise (Behrens 2017; Ignatov 2017). Frafra onto-epistemology as a decolonial framework enables us to understand environmental ethics beyond the limitations of modernist sustainability. Their more-than-human perspectives are decolonially informed and deeply interconnected with

Indigenous wisdom worldwide, enabling a non-reductionist approach that can broaden global sustainability discussions. Frafra environmental practices offer futural alternatives for decolonising mainstream sustainability: their thought provides a foundational decolonial approach in order to radically rethink the world in the contemporary Anthropocene. Frafra approaches offer decolonial sustainability models that centre Indigenous agency and sovereignty beyond modernist sustainability frameworks by re-envisioning ecological ethics, governance, and relationality. Indigenous agency and sovereignty call for self-determination in environmental governance instead of top-down Western environmental policies. Relational, holistic, and spiritually embedded understanding of nature within the Frafra people's onto-epistemology does not fit neatly within modernist sustainability frameworks that focus on managing resources for future use. Frafra thought fundamentally critiques the scope of modernist sustainability by emphasising coexistence, reciprocity, and ancestral stewardship.

The Frafra case provides a compelling example of how relational ontologies can be theorised and provide new insights into global sustainability discussions. The theorisation of Frafra relational ontology, which recognises humans, non-humans, and spiritual entities as entangled in a web of reciprocal relations, transcends localised understandings and makes observations that are universally applicable to sustainability debates. This is essentially because the theorisation of Frafra Indigenous ways of knowing and being resist reductionist sustainability frameworks by offering relational, holistic, and entangled perspectives on human-nature interactions. Their ecological rituals, spiritual taboos, and Ancestral relationships with land provide locally grounded, context-specific solutions that critique the Eurocentric bias in sustainability policies. Sustainability narratives often rest on Western academic frameworks and anthropocentric assumptions rather than on understanding it as embedded in cultural and spiritual worldviews. I suggest that experiences of the Frafra Indigenous group can be translated more globally and scaled up, to reflect on some critical Indigenous studies perspectives. The Frafra case resonates with broader Indigenous struggles globally. For instance, many Indigenous groups such as the Māori in New Zealand and the Quechua in the Andes, share relational and more-than-human sustainable development narratives. The Māori concept of *kaitiakitanga* (guardianship of land and water), the Andean cosmovision of *Pachamama* (Mother Earth) or the Anishinaabe "All My Relations" philosophy embody a deeply interconnected view of life, in which human, non-human, and spiritual forces are part of a reciprocal and relational

existence that resonates with Frafra ecological relations (Marras Tate and Rapatahana 2023; Apaza Huanca 2019; Ineese-Nash 2021). The spiritual-ecological entanglements of Yoruba (Nigeria), Sámi (Finland), and Cree (Canada) share a more-than-human ontological approach to environmental adaptation strategies, climate resilience policies, and governance that challenge modernist sustainability frameworks.

While the Frafra people's onto-epistemologies have fostered resilience and adaptation to environmental changes, it is important to underscore that these onto-epistemologies encompass practices that may inadvertently contribute to environmental challenges. Frafra agricultural practices such as subsistence farming can lead to overexploitation and overuse of Land resources due to increasing population pressures (Awedoba and Hahn 2014). The overexploitation and overuse of Land resources necessitate degradation and reduced agricultural productivity. Socio-cultural practices that include among other things the demand for resources associated with traditional ceremonies may contribute to resource depletion and environmental change. In as much as the Frafra people integrated system of being and knowledge historically promoted environmental sustainability, it is crucially important to assess and adapt certain practices in order to ensure they align with contemporary sustainability goals. The recognition of Indigenous Frafra more-than-human entanglement is the way to go if humanity is to survive many worlds on one planet and cope with the increasingly catastrophic ecological changes wrought by Western modernist thought in the Anthropocenic present.

Sustainable Development in the Anthropocene

The Anthropocene epoch is conceived for the sustainability of life. How are we to understand the relation between the rationalities of sustainable development and the problematic of the Anthropocene? Sustainable development is increasingly refracted through conceptualisations of the problematic of the Anthropocene. Anthropocene discourses appropriate sustainable development rationalities to secure life of the biosphere. The new geological era and its things, natures, and non-human forces threaten the survival of humanity and the natural environment (Harrington 2016; Crutzen and Stoermer 2000). The Anthropocene epoch is defined by the human impact on the physical landscapes, biodiversity, planet's ecosystems etc. (Harrington 2016). The Anthropocene urges humanity to face a future of destruction and to live in harm, risk, and loss amidst increasing danger

(Harrington 2016). This view is increasingly characterised by powerlessness and apathy instead of a call for the radical transformation in how we live and relate to nature (Tsing 2015; Cohen et al. 2016; Chandler 2018; Karera 2019). Deep entanglement between humans, non-humans, things, and natures evolves through co-relations. This necessitates alternative ways of being and multiple ways of knowing, particularly those grounded in Indigenous and marginalised cultural perspectives that challenge the modernist notion of linear causation (Haraway 2016).

Sustainable development narratives provide a comprehensive framework for addressing environmental concerns such as climate change adaptation, insecurity, conflict, and terrorism in international policy-making (Kopnina 2020). It emphasises tackling climate crisis and working to preserve the environment (UNEP 2004; Death 2010). The sustainable development framework gained global prominence through the World Commission on Environment and Development (WCED) report (Death 2010). The World Commission on Environment and Development (WCED), also known as the Brundtland Report after its chairwoman Gro Harlem Brundtland, was published in 1987 (Brundtland 1987). The report, titled *Our Common Future*, emphasised the interconnectedness of environmental and economic policies and laid the groundwork for subsequent sustainability discourse (United Nations 2004; Death 2010). Critical to the ambitions of *Our Common Future* and related publications underlie the causes of environmental destruction (Death 2010). Proponents maintain that sustainable development narratives shift the scope of concern from a narrow focus on human life to a broader consideration of the entire biosphere (UNEP 2004). In this sense, the turn to sustainable development, we are told, provides the rationalities to increase the long-term sustainability for all living systems, but also for protecting human populations.

Sustainable development is a useful concept precisely because it understands and addresses global challenges in the context of ecological crisis in relation to vulnerable groups and marginalised populations. Increasing the sustainability among the poor and the vulnerable groups has unsurprisingly become a common discourse in critical Indigenous studies because it is precisely the poor who are unaware of environmental issues or sustainable practices (UNEP 2004: 5). Thus, the overarching concern of the United Nations Environment Program has been to increase the sustainability of the poor and the vulnerable groups (UNEP 2004: 5). Managing threats to ecosystem entails improving the sustainability of the poor in addressing environmental challenges. This is the underlying strategy by which the Anthropocene

thinking has served to legitimate and naturalize the critique of the sustainable development framework. The Anthropocene as a philosophical framework for understanding humanity's impact on the Earth is deeply intertwined with sustainability narratives. The Anthropocene and sustainable development are critical frameworks for understanding the global challenges of the 21st century including climate change, species extinction, and ecological degradation (Chandler 2022; Grove 2019; Rothe 2019). Sustainable development in the context of the Anthropocene epoch tasks us to respect the natural environment in order to prevent ecological collapse. While categories of modernist thought infuse sustainable development rationalities, the Anthropocene entanglement opens up new imaginaries for radically rethinking the complex, more-than-human hybrid onto-epistemologies of Indigenous peoples (Grove 2019; Rothe 2019). Indeed, rethinking sustainable narratives within the Anthropocene entanglement highlights a constitutive process within complex assemblages of human, non-human, and more-than-human understandings (Chipato and Chandler 2023; Chandler 2022).

The dominant critique of the Anthropocene and its attendant modernist thought call for a serious reflection over new forms of “planet politics” that take account of “entangled humanism” (Burke et al. 2016; Connolly 2017). This account of entangled humanism forces us to direct analytical attention to the importance of more complex assemblages and entanglements that can shape the contours of onto-epistemologies that have emerged in the discipline of International Relations (Blaney and Tickner 2017). I hold the view that the neglect of critical Indigenous plural ways of knowing and being, and relating to the environment in the Anthropocene, forces us to confront the ecological costs of modernity in order to move toward a more sustainable and interconnected world. The Anthropocene requires us to think of other non-human forms. Thus, the Anthropocene presents humanity with a new set of ethics that recognise that humans are not alone on Earth. Human's mutual respect and entanglement with non-human elements of the Earth conjures different imaginaries in which humans have to preserve and sustain themselves (Ignatov 2017). This mutual respect and entanglement that comprises other humans, beings, things, and processes provide an essential lens for approaching sustainability in the Anthropocene. The sustainable development framework has been widely critiqued from various perspectives, including Indigenous academia, the policy world (most notably the UN), from critical Anthropocene theory, decolonial thought, political ecology, economic, and social justice standpoints (Chandler and Pugh 2021; UN 2015).

Critical approaches and more contemporary imaginaries of non-anthropocentric epistemologies and ontologies in the field of sustainability challenge top-down technological solutions and propose frameworks that balance human needs and planetary boundaries. Matthew Archer's book, *Unsustainable: Measurement, Reporting, and the Limits of Corporate Sustainability* (2024) emphasises how incorporating perspectives from Black and Indigenous theories ensures a more socially and ecologically just vision of sustainability. As Archer argues, mainstream sustainability approaches are anthropocentric and emphasise the importance of diverse cultural perspectives in addressing the underlying causes of climate change and social inequality. Writing on "An African Anthropocene," Emily Brownell (2022) contends that the Anthropocene concept must be applied to African contexts. As Gabrielle Hecht for instance writes, it is important to understand how global processes are interconnected with local experiences of environmental change (Hecht 2018). Iva Peša (2022) draws on decolonial approaches to understand the more-than-human narratives of the Anthropocene in Africa. Peša focuses on the case studies of Zambia, South Africa, and Nigeria to highlight how historical and socio-economic factors shape local responses to environmental degradation. These scholars have critically examined the Anthropocene, particularly in the context of Africa in order to fully grasp its multifaceted impacts. They offer nuanced perspectives that challenge modernist reductionist and universalist sustainability frameworks and has been crucial in informing and enriching global sustainability discourses as well as shape the ontological contours of debates in the Anthropocene. The mainstream sustainability does not take into account non-human agency or more-than-human relationships in order to consider the complexities of local ecosystems and cultural contexts. Indigenous critiques highlight that humans are not separate from nature but embedded within it. Indigenous critiques call for relationality and reciprocity rather than mere conservation for economic benefit within the broader sustainability discourses. It highlights relational ontologies and sacred ecologies as alternative governance frameworks. Sustainable development frameworks must prioritise localised, adaptive resilience practices rooted in Indigenous onto-epistemologies rather than top-down technological solutions. The sustainable development framework must become more aware of Indigenous sensibilities by shifting from extractivist models to relational and reciprocal approaches to nature.

Concluding Remarks

This article has shown how Frafra relational onto-epistemologies challenge the reductionism of mainstream sustainability in the Anthropocene. I have highlighted how the Frafra people natural world and perspectives make ways of knowing and being from which we can face the past, present, and future collectively. Their more-than-human modes of existence I have argued represent a deeply reflexive attempt at decolonial thought and relational onto-epistemologies. Decolonial critiques argue that the Frafra focus on relationships of interdependence and reciprocity enables the possibility of surpassing planetary limits from which we could embrace the world in the Anthropocene. By emphasising spiritual balance, ecological knowledge, and communal responsibility, the Frafra people offer a decolonial critique of the Anthropocene that calls for a radical rethinking of how we understand the relationship between humans and the environment. Frafra sustainable narratives and thought reject the Western modernist imaginary about a split between human and nature in the present context of global ecological crisis. Their worldview acknowledges that humans, animals, plants, spirits, and Ancestors, non-human entities and spiritual dimensions need to be accepted as the starting point for sustainable ecology in the Anthropocene.

By theorising the Frafra more-than-human hybrid onto-epistemologies, we can push for policy shifts that integrate relational ontologies into climate resilience frameworks. Embedding relational ontologies that emphasise the interconnectedness among humans, non-humans, and the environment can lead to more holistic and culturally relevant resilience strategies. Their rich cultural narratives and practices reflect principles of respect and reciprocity, highlighting their interconnectedness with the natural world. This approach not only enhances the effectiveness of climate adaptation strategies but also promotes inclusivity that acknowledges diverse ways of knowing and being. My contention is that policy makers and theorists acknowledge the existence of local forms of ecological knowledge, practices, and worldviews in order to enhance sustainable development and find meaning in the contemporary Anthropocene.

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