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RESEARCH ARTICLE



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The interplay of Christianity and Ndaou African traditional religion in shaping climate change adaptation in Zimbabwe: An Afrocentric analysis

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Abstract

This paper utilizes Afrocentric tenets to explore how the Ndaou people's shift from African traditional religion to Christianity affects their understanding and experience of climate change. Set against recent climate-induced disasters in Chimanimani, the study employs Afrocentric qualitative methods, including talking cycles and philosophical sagacity interviews, to gather data from household heads and village leaders. Findings indicate that traditional religious practices significantly influenced rainfall patterns and disease control, impacting agriculture. The transition to Christianity has markedly altered the community's climate change adaptation strategies. Despite this shift, Christianity has provided benefits, aiding communities in coping with droughts, death, property destruction, livelihood disruption, and climate change-induced diseases. This study contributes to Sustainable Development Goal 13, emphasizing the importance of understanding society's social rubric to combat climate change. By employing Afrocentric lenses to analyze the Ndaou people's historical and cultural narratives, it offers a unique perspective on religious evolution and climate adaptation.

KEYWORDS

Africa, Afrocentricity, climate change adaptation, indigenous knowledge, religion, sustainable development

1 | INTRODUCTION

Climate change has worldwide implications, and Sub-Saharan Africa is recognized as one of the region's most severely impacted by this phenomenon (Maino & Emrullahu, 2022). The appearance of these changes in Africa was observed from approximately 1975 onwards, with subsequent temperature rises occurring at an average annual pace of approximately 0.03°C (Hartmann et al., 2013). Zimbabwe, like other regions situated in semi-arid areas, experiences restricted and unpredictable rainfall patterns and fluctuations in temperature (Dzirekwa et al., 2023; Matsa, 2021). The nation has experienced the impact of slow to sudden-onset events such as drought and cyclones,

which have demonstrated an upward trend in occurrence (Mupepi & Matsa, 2023; Ndabaningi et al., 2023; Nyahunda et al., 2021). Mtambanengwe et al. (2012) and Mashizha (2019) have emphasized the impact of climate change in Zimbabwe, which is evident through the observed shifts in the timing of the rainy season, extended periods of drought, exceptionally cold winters, and intensified heat throughout spring and summer seasons. A recent study revealed that although no significant climate change trends were detected at a 95% confidence interval, important shifts in rainfall patterns such as an increase in the maximum number of consecutive dry days (MNCDD) and maximum rainfall per day (MRD) were observed (Gwatida et al., 2023). These findings underscore the need for more geographically targeted

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adaptation strategies, as Zimbabwe's heavy reliance on rain-fed agriculture makes understanding rainfall characteristics essential for planning and decision-making (Gwatida et al., 2023). Notably, due to the horrendous impacts of climate change, the United Nations through its organs and member states have engaged in promoting adaptation practices across the globe.

The suggested options for climate change adaptation have predominantly originated from economic and engineering perspectives (Hulme, 2017). Nevertheless, the current uncertainty surrounding the successful and timely implementation of these adaptation tactics and procedures raises concerns over the potential for enduring climate change impacts (Aldunce et al., 2014). Consequently, there is a heightened danger of exacerbating the suffering experienced by several individuals (Chitongo, 2021). Literature bears testimony that African rural communities bear the brunt of climate change impacts due to high levels of vulnerability aggravated by poverty, lack of effective institutions, and reliance on climate-sensitive livelihoods (Mugambiwa, 2021; Nyahunda & Tirivangasi, 2021). Amidst, a coterie of climate-related impacts on rural communities' lives, livelihoods and food security systems, these communities have developed a regime of strategies to withstand climate change impacts (Chanza et al., 2020). The impacts of climate change on human lives, livelihoods, economy, health, food security, and sustainable development are well documented in literature (Aldunce et al., 2014; Chanza et al., 2020). What has not received due attention is the impacts of climate change on the cultural and spiritual tapestry of communities. This is against the backdrop of evidence that spirituality and culture play a pivotal role in shaping and directing how African communities respond to adversities including climate change (Mabvurira, 2018). This article submits that exploring adaptation strategies employed by African communities requires an objective juxtaposition of the prevailing cultural perspectives, both progressive and regressive, on climate change issues. This also involves examining the conflict between religions in facilitating adaptation to climate change. While existing research has highlighted the connections between Christianity and climate change, particularly the impact of religious values on climate perceptions (Delgado, 2017; Morrison et al., 2015; Spencer & White, 2007), there is a gap in understanding how Christianity interacts with African traditional religious practices in the context of climate adaptation.

According to Schuman et al. (2018), religion offers a valuable analytical framework and serves as a noteworthy cultural microcosm for examining communities in relation to climate change. This study used Afrocentric tenets to understand how religion shapes the Ndau people's understanding of climate change and their adaptation practices in the face of changing religious views. Afrocentricity offers a distinct advantage by centering African culture, knowledge systems, and historical experiences, allowing climate adaptation strategies to be rooted in the values and practices of local communities (Nyahunda & Tirivangasi, 2021). Afrocentricity can be defined as the act of prioritizing African culture as the focal point in any examination pertaining to the study of African people or communities (Asante, 1990). Afrocentricity empowers Africans to be central figures in their historical narratives rather than marginal characters in dominant cultures. Afrocentric

theorists seek to highlight the centrality of Africans in various contexts (Asante, 1987, p. 6).

Asante (1990) opines that Afrocentricity hinges on the aspiration that African people should interpret and engage with reality from their own cultural viewpoint, rather than through the lens of non-African cultures or alienated African perspectives. This worldview is rooted in African cultural beliefs, practices, and values (Asante, 1987). Culture, as defined by Barker (1999), encompasses the customs, habits, skills, arts, values, ideology, and religious behaviors of a group. The Ndau people are influenced by both African traditional religion (ATR) and Christian beliefs. The influence of cosmic beliefs on the African way of life is not unexpected. Cosmologies can be understood as narratives that encompass our underlying assumptions regarding the nature of the world and humanity's position within the larger cosmic framework, although these assumptions may not always be clearly articulated. African people, as per their religious beliefs, hold faith in the presence of ancestral spirits and the existence of a supreme deity (Wiredu, 1998). Most African societies believe in the quintessential connection between ancestral spirits and nature (Dickson, 2018). That said, there is a consensus among scholars that the belief in ancestral spirits hinges on reliance on supernatural powers in fostering the healing of ailments and addressing diverse environmental ills (Daneel, 1993; Dickson, 2018). The individuals in question resort to invoking the assistance of their ancestors and the divine entity known as God when confronted with inexplicable severe weather phenomena, such as the gradual manifestation of climate change-related consequences like droughts, floods, cyclones, and extreme weather events. The freedom of religion and worship guaranteed by most legislation connotes that diverse religious persuasions offer different perspectives on how environmental problems are interpreted and addressed. In light of this, the belief that ATR is archaic and rudimentary influences a shift to Christianity as an alternative religion (Mabvurira, 2018).

The Afrocentric approach underscores the importance of these spiritual and cultural systems in crafting climate adaptation strategies that resonate with local realities. Through the same tenets of culture and historicity, which we understood how African people adapted the changing climate using the wisdom of ATR, we still used the same tenets to understand the influence Christianity in now posing to the Ndau people as more people now adopt the Jewish religion. While traditional Christianity is characterized by its adherence to established religious beliefs based on authoritative tradition and scripture, progressive Christianity seeks to reinterpret these beliefs in accordance with fundamental principles of Christian identity, contemporary scientific knowledge, and the wider post-modern cultural context. The aim is to foster a Christianity that is more actively involved in societal issues. According to Young (1997), the Bible portrays Christianity as a belief system that perceives reality as the product of a singular deity who surpasses the natural world. Creation is inherently good, as it is believed to have been brought into existence by a divine being. The human species has been entrusted with the task of overseeing the well-being of the entire natural world and upholding the duty of preserving the harmonious order that has been intricately designed by a higher power (Van Ham, 2018).

This study examines how both ATR and Christianity shape the Ndau people's climate change adaptation practices using Afrocentric analysis. Afrocentricity ensures that these strategies emerge organically from the community's cultural and spiritual framework, promoting more sustainable, and widely accepted approaches. The research contributes to the growing body of work addressing climate change challenges in Zimbabwe and beyond. Building on Chanza et al. (2020), which highlights the reality of climate change and the need for sustainable mitigation, this paper explores the often-overlooked role of diverse belief systems in shaping adaptation or maladaptation to climate change. Specifically, it investigates how the Ndau people's shift from ATR to Christianity affects their interpretation and response to climate change. Through Afrocentric theoretical lenses, the article provides a nuanced perspective on how religious evolution influences climate change adaptation practices in Africa, while addressing the limitations of Eurocentric interpretations.

2 | METHODOLOGY

2.1 | The study site

Chimanimani district (where the Ndau people are located) as shown in Figure 1 was chosen as the case study for this study. It is one of the

regions that receive rainfall of up to 1400 mm per year (Chingombe & Musarandega, 2021), and most of the specialized crops are grown in this place. The farmers in the area grow crops such as maize, sorghum, millet, sun flowers, groundnuts, beans, and potatoes. A large portion of the district is occupied by timber and tea plantations. According to Mutandwa et al. (2019), the district has a total area of 3450.14 square kilometers and the population is projected to be a total of 179,884 by end of 2024 (ZimStats, 2020). It is the smallest district in Manicaland with high rugged terrain rising to 600 meters above sea level. The district consists of 23 wards and is mainly rural as noted above, relies on farming as per the livelihood. The region like most other areas in Southern Africa has been affected by climate change, which disturbed its ecosystem. The area is prone to tropical cyclones as it lies in the overland path of the cyclones from Mozambique and the Indian Ocean (Department of Civil Protection, 2013).

The topography is extremely rugged, with ranges of peaks and ravines that cause resistance to the movement of tropical cyclones. The region has recently suffered from the effects of Cyclone Idai, on March 15, 2019, Chimanimani and other eight districts experienced unprecedented destruction of property, human life, and the general way of life (Government of Zimbabwe, 2016). Settlements were destroyed, and roads and communication were rendered useless as the infrastructure suffered huge damage. The impact of the cyclone was mostly attributed to the moving landslides.

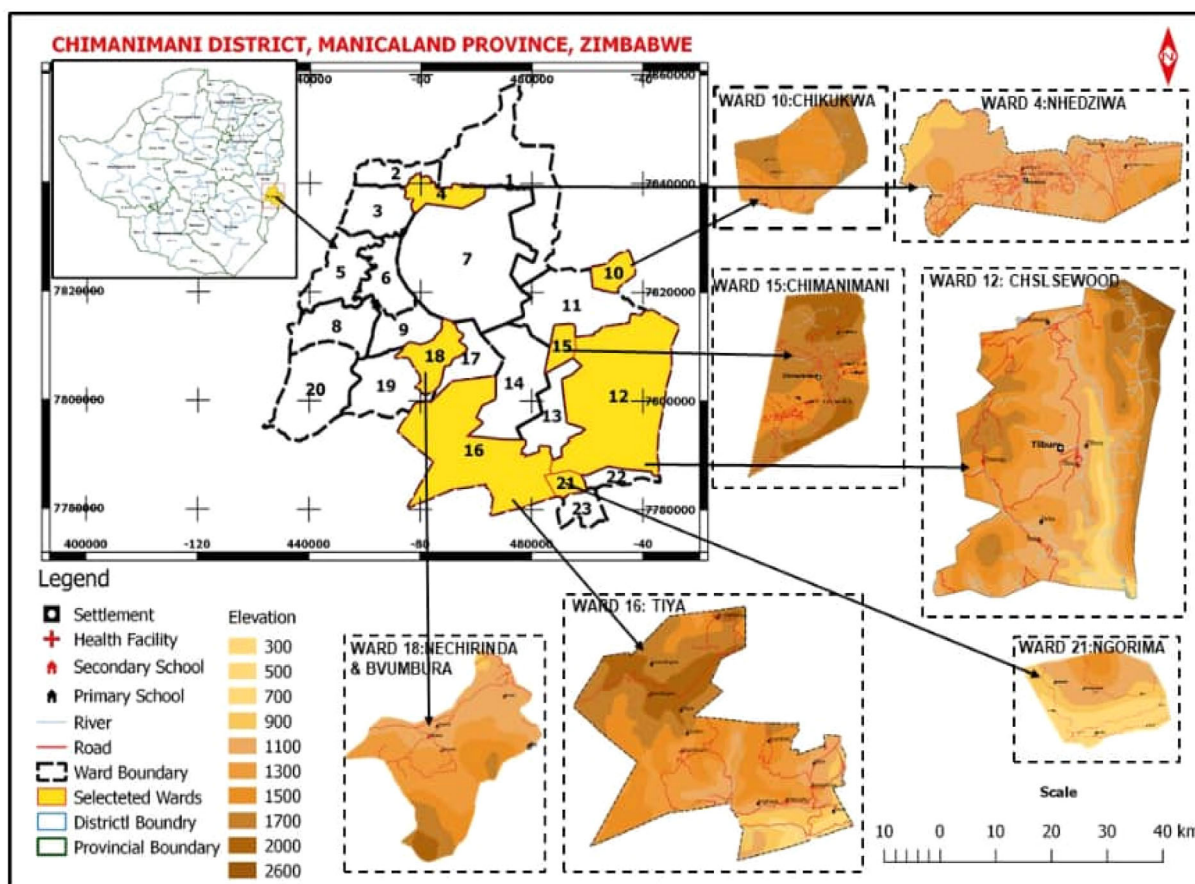


FIGURE 1 Location of the study area in Chimanimani, Manicaland Province of Zimbabwe.

2.2 | Sampling strategy and data collection procedures

Chimanimani district was identified as the population, and seven wards were purposively selected to capture a diverse range of climate-induced challenges. The study was conducted in Ward 10 (Chikukwa), Ward 4 (Nhedziwa), Ward 12 (Charleswood), Ward 15 (Chimanimani), Ward 16 (Tiya), Ward 18 (Nechirinda and Bvumbura), and Ward 21 (Ngorima), as shown in Figure 1. Wards 15, 21, and 16 were chosen due to their high susceptibility to sudden-onset events, such as floods, providing critical insight into community responses to such climate shocks. Other wards, such as Wards 10 and 4, were selected to examine how communities are adapting to climate-induced droughts. This combination of wards allows for a comparative analysis of communities facing both rapid and slow-onset climate events, providing a comprehensive understanding of the diverse climate challenges in Chimanimani. Additionally, participants from less affected areas contributed valuable knowledge on regional climate trends and adaptation strategies.

The researchers utilized purposive sampling to select participants. The purposive sampling method allows the researcher to use his or her judgment in selecting key informants who possess that data a researcher seeks. The Afrocentric protagonist Pellerin (2012) argues that Afrocentric researchers must remain aware of the agency of African people and must take care to involve a proportionate sample size. The selected seven (7) village heads (Sabhuku), eighty-four (84) community household heads. Ninety-one participants were selected for this study.

The researchers adopted talking cycles, known as conversational or discursive methods (Mthembu, 2021, p. 141), which are similar to Focus Group Discussions. This method is rooted in African traditions, where community members gather in circles for discussion, symbolizing equality, respect, and shared wisdom. In each talking cycle, sacred objects are often passed from speaker to encourage participation and uninterrupted dialog. This method was used to collect data from household heads in the community. During the group conversations, historical narratives on climate change adaptation and perceptions of the changing climate were gathered. Two talking cycles were held in each of the seven wards, Ward 10 (Chikukwa), Ward 4 (Nhedziwa), Ward 12 (Charleswood), Ward 15 (Chimanimani), Ward 16 (Tiya), Ward 18 (Nechirinda and Bvumbura), and Ward 21 (Ngorima), with each group comprising 6 participants. A total of 12 participants took part in each ward, bringing the number of participants to 84. Each talking cycle was composed of six community household heads, and data saturation was reached at each session, as evidenced by the recurring themes. The conversation was initiated with an open-ended starting question: "Can you share how the climate has changed in your community over time, and how you and others have adapted to these changes?" This guiding question encouraged participants to reflect on their personal experiences while allowing for a natural flow of discussion. By focusing on both the observed changes in climate and the specific ways communities have adapted, the conversation enabled an in-depth exploration of historical and current

perspectives. The open-ended nature of the question aligned with the Afrocentric approach and the conversational style of the talking circles, ensuring that participants could share insights freely and guide the discussion based on their lived experiences and indigenous knowledge.

In the aftermath of the talking cycles, follow-up questions and areas requiring further clarity were posed to the village heads. To facilitate this, we employed the philosophical sagacity interview method, an indigenous approach that draws on the wisdom and traditions of elders (Emagalit, 2001, p. 4). This method is grounded in the assumption that valuable knowledge, especially in postcolonial indigenous systems, resides within the wisdom of community sages who may not have formal education but possess vast experiential knowledge (Kaphagawani & Malherbe, 1998). Philosophical sagacity enables researchers to tap into oral traditions and consult a rich repository of cultural wisdom that is often undocumented in written literature. According to Mkabela (2005), these sages, often elders, or cultural committee members, should be integral to the research process, offering critical insights that might not otherwise be available. Cora Weber-Pillwax (2001) also suggests that sages critique written literature on the research topic, ensuring that indigenous knowledge is preserved and respected. In this study, we selected seven village heads (Sabhuku) as key informants, given their status as custodians of knowledge within the Nda community in Chimanimani. The philosophical sagacity interview method was used to capture the village heads' historical and cultural narratives on climate change and indigenous adaptation practices. During the talking cycles with family heads, it became apparent that religious practices play a pivotal role in shaping adaptation strategies. By engaging the village heads, who are deeply versed in these practices, we were able to gather more in-depth knowledge on the intersection of religion and climate adaptation among the Nda people. This additional phase brought the total number of participants to 91. Due to repeated themes emanating from the interviews, we believe that data saturation has been reached.

2.3 | Data analysis

Data were analyzed using reflexive thematic content analysis with an Afrocentric perspective. According to Pellerin (2012), data processing should preserve the integrity of the material, avoiding distortion or the imposition of negative values on African culture. This means that the coding process must be informed by African cultures, traditions, histories, ideas, languages, and experiences. As Mkabela (2005) notes, using non-African-aligned standards in data processing can undermine the research. This perspective allowed the researchers to explore latent meanings and contextual interpretations (Braun & Clarke, 2021). The analysis began during data collection, as researchers sought to understand how religious beliefs between Christianity and ATR shaped climate change adaptation. The team followed Braun and Clarke's (2021) criteria: maintaining focus, avoiding thematic overlap, and addressing the research question directly. Peer

debriefing was also employed to ensure trustworthiness, with colleagues reviewing and discussing the emerging themes. Aligned with the Afrocentric approach, reflexive thematic analysis involves self-reflection on how one's background shapes understanding of the data (Braun & Clarke, 2021). As native Shona speakers, the researchers were familiar with the indigenous knowledge shared by the Ndau people, enabling follow-up inquiries for clarity. This approach facilitated a nuanced understanding of the interplay between Christianity and Ndau ATR in shaping climate change adaptation in Zimbabwe.

3 | RESULTS AND DISCUSSION

The historical and cultural narratives revealed that sacred elements in nature lead people to become committed to environmental causes because religious beliefs have always been the centerpiece of Ndau people's cultural practices as they seek answers to the global and local challenges they face in their daily lives. The Ndau indigenous people have not been passive victims of climate change and indeed have been adapting in multiple ways to climate change for generations. The findings of this study start by indicating the rich historical and cultural narratives on how the Ndau people have utilized their ATR to adapt to the changing climate change. This will be followed by a noticeable transition to Christianity beliefs, which are both restrictive and helpful to climate change adaptation efforts.

3.1 | ATR influence on climate change adaptation efforts

The historical and cultural narratives received through the philosophical sagacity interview method and talking cycles conducted by the researchers revealed that ATR had a special place in the lives of the Ndau people in Chimanimani. It was established that through ATR, Ndau people maintained a close relationship with Mwari (*Musikavanhu*), through their national or senior tribal ancestors. Mwari (God) is known as the creator god of ecology, concerned with rain, crops, and human fertility. The Ndau people believe in the supreme being known as Mwari. They also believe in ancestors known as *Vadzimu* who are, "living-dead who live under the soil, own, and control it." These *Vadzimu* exist on different levels namely, familial, and territorial. In other words, there are ancestors for the family as well as for the whole community.

This God captured the imagination of his/her people by proffering help during times of crisis. During any perceived crisis the local communities vest their trust in *Vadzimu* (ancestors) who work in collaboration with God to redeem them from danger or to give them direction on how to navigate adversities. The communication between the community members and the ancestors who relay the petitions to God is done through Spirit Mediums (*Masvikiro*). The Spirit Mediums convey the message of their territorial ancestors to the people. The researchers noted that this relationship between the Ndau people and their God was very critical for generations as a way of adapting to the

changing climate. The Spirit Mediums give direction to the local chiefs on what to do to mitigate some climate-related challenges. Some of the practices directed by the messengers between the people and their ancestors (*Homwe/Masvikiro*) were noted through (*Doro remakoto*)—beer brewed for rain-making ceremonies and (*Kunochema mvura*) crying for rain. In the next section, the researchers explain these issues in detail.

3.1.1 | *Doro remakoto/Doro remusoso*: Ndau traditional rain-making ceremonies

The Ndau people's traditional rain-making ceremonies played an integral role in their response to the impacts of climate change. It was noted in multiple historical and cultural narratives that climate had affected the farming season through the delay of the rainfall season. In response, the Ndau people through their ATR performed what is called (*Doro remakoto*—Beer for rainmaking). One *Sabhuku* (village head) explained this ceremony:

This ceremony used to be conducted every year under the guidance of Masvikiro (Spirit mediums), the link between Mwari (God) and the people. This beer was brewed for 7 days. There were certain rules that guided people who prepared and participated in the ceremonies. First, both women and men were not supposed to have sexual intercourse prior to and during the ceremony, in other areas only the elderly were sanctioned to attend this ceremony. Second, people would traditionally prepare sadza rezviyo and vegetables cooked without cooking oil as well as chicken roasted with salt only. The chief would wrap himself with female wrapping cloth and then go and perform the rites together with the spirit medium...before people finish the ceremony, the place would receive heavy or so rain showers, which indicate that their prayers are answered. (*Sabhuku/village head, Ward 4, Nhedziwa*).

Another participant noted:

This ceremony is initiated by Mutape/King in consultation with (*svikiro/Homwe*) for instructions. It goes like this...elderly women (*zvikosha/chembere*) and virgin girls (*zendere*) from the royal family are responsible for preparing malt for beer using maize (*magwere/mabonere*) or sorghum (*mafunde*). Once the beer matures, the king (*mutape*) sends invitations to the makoto ceremony through his messengers (*nduna*). The ceremony includes vulgar songs and dances, performed by the elderly, along with poetic utterances by the king or rainmaker to invoke the ancestors and Mwari for rain. Once the ritual concludes, abundant rainfall follows,

indicating the gods have answered their prayers.
(Talking cycles, Ward 4, Nhedziwa).

The rain-making ceremonies practiced by the Ndaу people highlight the profound connection between their spiritual beliefs and climate adaptation strategies. In these ceremonies, the chief (*Mutape/Mambo*) and spirit mediums (*Masvikiro/Homwe*) offer brewed beer to (*Vadzimu*, the ancestral spirits), with the expectation that they will intercede with *Mwari* (God) on behalf of the community. These rituals, performed in sacred places, are deeply embedded in the community's cultural fabric and are led by key figures such as the chief, elders, traditional healers (*N'anga*), and spirit mediums. Acknowledged across all study sites, the rain-making ceremonies serve as a vital response to the unpredictable rainfall patterns associated with climate change, reflecting the Ndaу people's belief that the ancestors, as custodians of the natural environment, hold influence over the release of rains and the prosperity of the land. This belief is further supported by the notion that the ancestors, being the closest link to the divine, negotiate with God to ensure rains and alleviate plagues (Ejizu, 2013). The view of ancestors as benevolent spirits, deeply entrenched in African spirituality, underscores the role of ancestral rituals as both cultural practices and practical responses to environmental challenges. These ceremonies, therefore, are not merely symbolic but serve as integral climate adaptation strategies, blending spirituality with ecological stewardship in a distinctly Afrocentric approach to managing environmental uncertainty.

3.1.2 | Kuenda Kunochema mvura (going to cry for the rains)

The Afrocentric historical and cultural narratives from the field also revealed a second practice, which is followed to ask for rains amidst long dry spells induced by climate change is called *Kuenda Kunochema Mvura* (Going to cry for rain). This practice was well explained in one of the talking cycles in Chikukwa community. The participants explained this practice as follows:

The old women who have reached menopause (*zvikosha/chembere*) would travel to the king's compound without wearing their underwear and vanofukura (they lift their skirts) singing and dancing to profanities. They will also be saying what shall we use to bath, we have no water to bath. The king would ask them where to have you came from. How long does it take you to reach home? Even if it is close by, they may say 2 days knowing others have come from far away. Before two ends, it will rain. This is an indication that their cries have been heard. (Talking Cycles, Chikukwa, Ward 10).

According to the participants, this practice shoulders the burden on local (*Mutape/chiefs*) who are ordained by *Vadzimu* to make

petitions on behalf of the people. After experiencing long dry spells caused by climate change, there is a general feeling that it is a result of the neglect by the *Vadzimu* in which the local chiefs should stand in the gap and appeal to them to release their (*Misodzi*) tears (rains).

3.1.3 | Protecting crops against sudden pests on crops

The researchers also noted that as the climate changes, various pests that affect farm produce also come. The Ndaу people are not short of the mechanisms to protect their agricultural produce. It was noted that most of the time armyworms would affect crops and other infestations. In response, there is a cultural practice called "*Kudzanga mbunga*" (Chasing away pests) one participant noted:

Women who have reached menopause would take the affected maize cobs and carry them on their back, and they will go and do the rituals at their known sacred place. They will be playing drums and singing profanities. This is done with the knowledge of the chief. By the time they come back, the armyworm would disappear without anyone noticing (Talking Cycle, Ward 15, Chimanimani).

This was an effective way to deal with pests affecting new crops. These findings were supported by Wiredu (1998) explains that in many ATR, ancestral spirits are believed to influence weather patterns, harvests, and the health of livestock. Communities perform rituals to honor ancestors and seek their favor for protection against natural calamities like floods, droughts, or pest outbreaks. Our study revealed that women are at the forefront when it comes to food production and agricultural activities. Hence, they participated in the rain-making ceremonies and the protection of crops and produce. The Ndaу people have another ATR practice to protect the new harvest. This would assist in coping with unpredictable future droughts and famines. One village head had this to say about harvest ceremonies:

The older people would take ripe vegetables, maize cobs, and a tobacco cigarette (Traditional one) and they would put it at every corner of the field making ritual appeasements. After permission is given to the families to go and eat their harvest. When you go and check for the items, they will be long gone meaning the ancestors are appeased. The process is said to be giving back to the poor of the land. (Sabhuku, Village headman, Ward 4, Nhedziwa).

Although religious and traditional beliefs sometimes prevent farmers from making more adaptive decisions, we argue that these cultural factors should not be viewed simply as barriers. These belief systems

are precisely because they play such an important role in enhancing the community's adaptation efforts.

3.1.4 | Protecting biodiversity as a climate change adaptation mechanism

The researchers noted that African traditional religious practices do not fall short in terms of conserving and restoring rural ecosystems to reduce the impacts of climate change on society. As a traditional ecologist, the *Svikiro* has important conservationist duties. On behalf of the local *Vadzimu wenyika* (ancestral guardians of the land), who receive their mandate to protect the environment directly from Mwari. The *Svikiro* are empowered to prohibit the cutting of certain trees. One response had this to say:

They are trees that are specified which cannot be cut down to this day. These include: *Muonde*, *Mukute*, *Mut-samvu*, and *Muonya*. These trees are not cut as they protect underground water. When we arrived here there was *zvinyuka* (water springs) but most have dried out in certain places because people cut down trees especially immigrants who have come to live with us. They do not know our traditions. (Talking Cycle, Ward 15, Chimanimani).

When the culprits are found they will be taken kwa-Mutape (chief) for prosecutions. (Talking Cycle, Ward 12, Charleswood).

In addition to not cutting down trees the African Religious practices prohibited the polluting of springs. This would anger the water mermaids (*Njuzu*). Such offenders are reported to the chiefs' court and others face the repercussions/punishment of their actions from the mermaids. The participants in Chimanimani noted that there are several people who disappeared after defying the observed taboos or restrictions about water bodies and forests. Some people also would fail to reach home from the forest if they have offended the sacred forest. They would walk in cycles lost in this forest until necessary rituals are performed by the (*Homwe/Svikiro/Spirit medium*) so that they are released from the spell. These ecological duties of the (*Homwe/Svikiro/Spirit medium*) create an awareness of divine vocation. Any violation of environmental taboos or blatant disregard for conventional norms and values disrupts peaceful coexistence (Chirongoma & Chitando, 2021). As a result, ancestral spirits withdraw their protection from the living, leaving them vulnerable to misfortunes, particularly disasters like the devastating Cyclone Idai. Indigenous people often agree that people should try to keep a balance between themselves, their ancestors, and the environment. It is considered a sacred duty to protect water supplies, such as the waterways in Ngangu. Disaster occurs from failure to protect these sacred locations, as evidenced by the destruction caused by the typhoon.

3.2 | Transition from ATR to Christianity

The historical and cultural narratives demonstrate how community climate change adaptation strategies have been significantly impacted by the conversion from ATR to Christianity. These long-standing customs began to fade with the arrival of Christianity, which condemned these cultural practices as heretical and required converts to give them up. As a result, many of these customs have been abandoned by converts. Elders and debate cycle participants mentioned that the custom of invoking the rain gods was the reason for brewing the beer, known as *doro remakoto*. It was mandatory for every home to brew this beer in October each year. Christians, on the other hand, declined to take part, and when the chief exercised his power, they would rebel by going to the police. Subsequently, the police would rebuke the chief, referencing statutes safeguarding religious liberty. The Zimbabwean constitution guarantees the freedom of religion, and the general free exercise of religious practices is encouraged by a number of laws and regulations. It protects people's freedom to select, alter, and openly and privately practice, teach, observe, and worship any religion they so want. In a population that is predominately Christian, the practice of *doro remakoto* is complicated by the inclusion of non-denominational Christian prayers at most official state events. This leads to a clash of ideologies that has a big influence on indigenous knowledge systems. The practice of *yekunofukura* or lifting skirts and singing and dancing profanities, a practice that is no longer considered appropriate and traveling to the chief's compound without underwear are the focal points of the second rain ritual, "Kuenda kunochema mvura," which is in opposition to both Christian beliefs and contemporary values. Christianity attacked the heart of Ndaу life who see ATR as archaic and pagan and a roadblock to properly accepting Jesus as a savior (Taringana & Nyambara, 2018, p. 56).

Researchers found through interviews that even Christians no longer believe in or participate in antiquated customs, despite their conversion to Christianity, and they still recognize the value of these customs. Curiously, the researchers discovered that some youths are aware of these ATR-based climate change adaptation strategies, refuting the stereotype that these customs are exclusively preserved by the old. Individuals with varying ages and backgrounds opt to participate in these activities in different ways. The researcher has observed that those who practised African Tradition Religion accused those who practice Christianity to be violating their sacred places, which resulted in the anger of the gods who punished them through cyclones. These assertions were also supported by an earlier study by Chirongoma and Chitando (2021, p. 75), in Chimanimani earlier:

We believe that the desecration of the sacred clay pots, which resided in a sacred cave on top of Ngangu Mountain perpetrated by some overzealous Christians is the reason behind the ancestral wrath resulting in the unleashing of this calamity. Since time immemorial, the sacred cave has always been revered as the abode of the highly respected ancestral spirits of our land [mudzimu mukuru]. It is an extremely beautiful natural

cave, which attracts pilgrims from the adherents of both Christianity and ATRs. Traditional rituals used to be performed inside the cave, especially rainmaking ceremonies and thanksgiving for good harvests. With time, some Christian groups have also designated the cave as their favorite spot for conducting night vigils whilst praying, fasting, and meditating. Inside the cave, there are artistic rock paintings believed to have been inscribed by the San during the pre-colonial period. Several unusual objects as well as sacred clay pots filled with rapoko are found inside the cave. Unfortunately, it is said that some Apostolic and Pentecostal Christian groups decided that the sacred clay pots were objects belonging to “heathen groups upholding evil traditions” and they decided to destroy the clay pots. Such an act is believed to have infuriated the ancestral spirits and raised their ire; hence, the ancestors expressed their indignation by causing the heavy rains, mudslides, and the rolling of the stones from the mountain. (Sabhuku/Village headman, Ward 4, Nhedziwa).

Most Chimanimani locals think that there is a spiritual reason for Ngangu Mountain's change from a source of water, health, and nourishment to one of death, destruction, and devastation. ATR practices have been profoundly impacted by the unavoidable embrace of Christianity, which was previously essential for climate change adaptation. Christian (2014:1) argues that “anything that affects nature affects religion, and anything that distorts the natural course of events affects the traditional religious practices of the Africans.” He goes on to say that customs like rainmaking rites and agricultural rituals have been regularly abandoned because of the unpredictability of rainfall patterns brought on by climate change. These assertions are supported by the research, which shows that the frequency of these rites has decreased or stopped.

The timing of seasonal rituals has also been affected by climate change because they are frequently period-specific. Rituals intended for September, for instance, have to be performed in September. The effectiveness of these ceremonies has been hampered by the delays caused by seasonal changes brought on by climate change. Ecologically related festivals are especially affected; for example, if planting ceremonies scheduled for October are postponed until November because of weather conditions, the quality of the plants declines. As a result, this disturbs the religious life of the community and may cause numerous ceremonies to go unperformed. Notably, one can note that African Traditional Religious practices are not enough to deal with the impacts hence Christianity had a massive impact on the lives of Ndau people as Christianity is both individual and community-oriented in terms of how one adapts to the changing climate. The following section discusses the undeniable contribution of Christian religious practices towards climate change adaptation as noted by the participants.

3.3 | Christianity's contribution to climate change adaptation

The transition from African Traditional Religious practices to Christian cosmos beliefs has not been all as bad as the newly adopted religion. Christianity can help people cope with adversities caused by climate change impacts. The following subsections give further insights.

3.3.1 | Men as custodians of the earth

The results from the interviews reveal that most participants who are Christians believed that they are not passive victims of climate change, but they have a role to play as custodians and rulers of the earth. One participant said:

I take it as my personal obligation to be responsible for my actions...to look after my environment. We live in harmony with all God's creation. I am a king and one of the roles of a king is to take care of their domain. I understand that as written in the bible in Genesis 1 versus 28 [Be fruitful and increase in number; fill the earth and subdue it]. Rule over the fish in the sea and the birds in the sky and over every living creature that moves on the ground...this is one of the first blessings set by God for man. (Talking Cycle, Ward 12, Charleswood).

Another participant added:

For me as a Christian, I agree, that our lord Jesus Christ has made us unto kings so that we rule on earth, revelations 5 versus 10. Most of our environmental problems are created by us for instance you choose how you manage the environment. Most people chose not to listen when they were advised by indigenous leadership. Ngangu and Coppa had been designated as human settlements by the district council while knowing fully well that these geographical locations were waterways. As such, when the heavy rains soaked the soil, the water escaped via these weak points and in the process, all the homes and the residents were swept away by the raging waters. This is a case of mis-managing your land. (Talking Cycle, Ward 12, Charleswood).

The researchers observed that Christianity fosters a sense of responsibility from the individual to the community. The Hebrew term for “have dominion” in Genesis 1:26, *radah*, should be interpreted as caregiving and nurturing rather than exploitation or harm, according to a study of the verb (Brueggemann et al., 1994). Therefore, Christians are responsible for managing the earth, avoiding

actions that lead to climate change, and properly stewarding the environment.

The results of this study closely match the literature in Zimbabwe on Christianity and environmental management. ZIRRCO (Zimbabwean Institute for Religious Research and Ecological Conservation) was founded in Masvingo, Zimbabwe, in 1988 because of a partnership between the Association of Zimbabwean Traditional Ecology (AZTREC) and the Association of African Earthkeeping Churches (AAEC) (Daneel, 1993). There are three sections inside this umbrella institution that manage financing, research, ecological policy and execution, and awareness campaigns: research, ecology, and financial administration. In the “War of the Trees,” religion was a defining feature. Up to 180 African Indigenous Churches (AICs), or two million people, celebrated Eucharists with a tree-planting ritual as a way of making up for environmental damage. Following communion, churchgoers would plant and care for seedlings. In the meantime, ZIRRCO's Traditionalist wing, commanded by war veterans, chiefs, and spirit mediums, drank beer and prayed to their ancestors to keep the young trees safe. In addition, children's groups planted trees using seedlings from multiple nurseries, and more than 80 women's organizations gathered money for environmental care, including gully restoration. In the 1990s, ZIRRCO led the greatest tree-planting campaign in southern Africa. Its supporters, who were Christian and traditionalist, planted 100 of 1000 of trees a year until the movement was derailed by political unrest in the early 2000s (Daneel, 2011). In the most recent times, Pope Francis is the latest leading voice from the church to call on the world to manage properly God's creation, hence enabling all of us to adapt. He stated:

And the Pope is passionate about the urgency of the situation.

Creation is not a property that we can rule over at will; or, even less, the property of only a few: Creation is a gift, it is a wonderful gift that God has given us, so that we care for it, and we use it for the benefit of all, always with great respect and gratitude.... But when we exploit Creation, we destroy the sign of God's love for us, in destroying Creation we are saying to God: “I do not like it! This is not good!” “So, what do you like?” “I like myself!”—Here, this is sin! Do you see? (Mountain, 2014, p. 1).

This not just speaking but a necessary call to responsible living that would foster and enhance adaptation efforts by a lot of people. Pope Francis' message, like that of leaders from Judaism, Christianity, and Islam (Schaefer, 2016), is not merely a call to action but a moral imperative for responsible living, essential for fostering adaptation strategies that benefit all people. Religious teachings, particularly those rooted in Judeo-Christian traditions, show a positive correlation with pro-environmental behavior. The environmental stewardship principles of Protestantism and Islam (Arbuckle & Konisky, 2015) further reinforce the call for sustainability. By aligning with these principles, individuals and communities can better respond to environmental challenges, promoting sustainable adaptation and resilience.

3.3.2 | Being prepared for slow to sudden onset events

The evidence from the field reveals that biblical knowledge helps community members in the Chimanimani district to prepare for slow-to-sudden onset climatic events. On that note, the researchers noted that some of the participants who were Christians were well-versed and believed that no storms, famines, or sudden floods would do them harm. One participant noted:

I understand most of the people whose houses were affected were built in low-lying areas which are both vulnerable to the falling stones from this mountain just like others were affected by mudslides and rain. Before I chose the place where my house is, I chose a better ground, and others had a special foundation look at the churches in the area none were affected by cyclone Idai. The Bible says in Matthew 7:24–27 [Everyone then who hears these words of mine and does them will be like a wise man who built his house on the rock. ²⁵ And the rain fell, and the floods came, and the winds blew and beat on that house, but it did not fall, because it had been founded on the rock. ²⁶ And everyone who hears these words of mine and does not do them will be like a foolish man who built his house on the sand. ²⁷ And the rain fell, and the floods came, and the winds blew and beat against that house, and it fell, and great was the fall of it]. (Talking Cycle, Ward 21, Ngorima).

The influence of Christianity on how some participants adapted to the cyclone was remarkable. When asked if they are afraid of droughts or what they do in case it does not rain. Whilst others argued that they relied on the government, others believed that God would protect them during the changing times. However, two participants were so sure that the bible is very informative about preparing for hard times. Some participants cited that during Joseph's time in the bible during the good harvest people kept stocks. In case of the drought even now people stock food during harvest and it is supplemented by the government. The researchers noted that people who are engrained in the Christian doctrine are more prepared to deal with the consequences of the changing climate.

3.3.3 | Acknowledgement of end of times, coping with grief, and the aftermath

The researchers understood that most participants in their brief description of the changing climate. They understood climate change as a sign of the end of times. They thought there was nothing they could do about it. One participant noted:

My son these cyclones are a sign of the end of times. We have never witnessed this in our life but if you can

notice there is an increase in these events and there is nothing, we can do about this. (Talking Cycle, Ward 21, Ngorima).

This perspective contributes to the expanding body of research on how Christianity affects efforts to adapt to climate change since some academics have pointed out that Christian eschatological views might also be problematic for encouraging ecological awareness. According to some, the continued devastation of the environment must portend the Second Coming, when believers should no longer be concerned about earthly affairs (Lindsey & Carlson, 1970; Rock, 2011). This viewpoint asserts once more that adhering to Judeo-Christian doctrine legitimizes the division between people and the natural world by viewing Earth as merely a stop along the path to eternal life. The study's findings also show that people who adopt these views cling to their faith in order to survive, regardless of how humans might influence or adjust to the changing climate. This is true even if humans are clearly responsible for some of the problems we are currently facing. However, others stated that knowing that this calamity may be a result of God's doing. It helped them to cope mentally with the loss of relatives. One participant noted:

I am the only one left in my family. I always asked myself why me? Why did I survive the cyclone alone in my whole family...when I asked my pastor, he told me I have God's given purpose and the other members I have lost... have run their race, now it is my turn to live according to God's will. (Talking Cycle, Ward 15, Chimanimani).

The researchers observed that due to the considerable risks to a family's physical and psychological well-being, families often feel extremely helpless and insecure in the aftermath. These experiences frequently leave individuals with feelings of meaninglessness and purposelessness, potentially leading to mental health issues such as depression, as well as psychological and spiritual distress. However, those who identified as Christian appeared optimistic because they believed they still had a role to fulfill. Therefore, the researchers concluded that survivors of Cyclone Idai in Chimanimani were motivated by Christian religious activities, which in turn fostered resilience and an adaptable mindset. Poole (2020) supports this view, emphasizing that Christian teachings provide hope and guidance in times of crisis, framing climate action and recovery as essential elements of faith. Christians are called to be stewards of God's creation, and this belief can inspire proactive efforts to restore both environmental and communal health. The connection between faith and care for the environment, as well as care for each other, strengthens resilience during post-disaster recovery phases. Christianity emerged as a significant resource that, through enhanced social support and self-efficacy during the post-disaster recovery phases, helped build community resilience, reduce the impact of post-traumatic mental health issues, and promote healing.

4 | CONCLUSION

The Afrocentric historical and cultural narratives from Chimanimani District revealed that the Ndaou people are influenced by both ATR and Christian religious practices in their adaptation responses to the changing climate. Notably, one can note that through the ATR, the Ndaou people were more dependent on the religion for answers about rain or diseases affecting their produce. However, modernity in the form of Christianity instigated changes in the way people perceive African Traditional Religious practices, which led to the adoption of the Christian belief system by other members of the society. Whilst ATR had an impact on the community-level thought process, Christianity influences individual adaptation processes as Christians say, "Salvation is personal." The researchers can conclude that despite the attempts to biliterate the Ndaou belief system, some beliefs and practices remained resilient. Hence, both African traditional religious practices and Christianity present the Ndaou people with an important resource for resilience mechanisms and adaptation practices. This study provides important contributions to policy, particularly in the development of culturally sensitive climate adaptation strategies. By recognizing and integrating the spiritual and cultural dimensions of climate change adaptation, policymakers can create more inclusive and effective frameworks that resonate with local communities. The insights gained from this Afrocentric analysis emphasize the importance of blending traditional knowledge systems with modern religious influences on craft sustainable and context-specific solutions. Moreover, the findings of this research align with and support Sustainable Development Goal 13 (Climate Action), which calls for urgent action to combat climate change and its impacts. Understanding the cultural and religious factors that shape adaptation practices is crucial to creating adaptive capacity at the grassroots level. This study underscores the need for policies that are not only technically sound but also culturally grounded, ensuring that climate adaptation strategies are more socially accepted and sustainable in the long run.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data is available upon request.

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