Impact of the Council of Churches in Zambia (CCZ) Climate Change Programme on Food Security in Zambia (Mobilizing Christian Communities for Climate Action)

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Abstract

Climate change remains one of the most pressing threats to food security in Zambia, where the majority of households depend on small-scale, rain-fed agriculture for their livelihoods. Increasingly unpredictable rainfall patterns, prolonged droughts, sometimes even floods, and declining soil fertility have placed rural communities at sharp risk of food insecurity. In response to these challenges, the Council of Churches in Zambia (CCZ), with other faith-based organisations, has implemented a Climate Change Programme that seeks to strengthen community resilience through sustainable agricultural practices, environmental stewardship, and faith-based community mobilisation. This article analyses the impact of the CCZ Climate Change Programme on food security in selected communities in Zambia where CCZ is more active in its interventions. Furthermore, the study adopts a qualitative, descriptive research design, drawing on programme reports from the CCZ documents. The findings suggest that the CCZ programme has contributed to improved household food security through the promotion of climate-smart agriculture, conservation farming, crop diversification, and tree planting initiatives. Participants reported increased awareness of climate change impacts, improved farming practices, and greater capacity to adapt to climate-related threats such as erratic rainfall and seasonal droughts. A distinctive feature of the programme is its integration of theological reflection with practical development action. By framing environmental care as a Christian responsibility rooted in stewardship and care for creation, the CCZ programme fostered strong community participation and local ownership. Churches served not only as platforms for training and mobilization but also as trusted spaces where environmental awareness and food security concerns were openly discussed. The article concludes that the CCZ Climate Change Programme has had a meaningful impact on food security in Zambia by combining empirical development interventions with theological engagement. It recommends strengthening monitoring mechanisms, expanding partnerships, and scaling up successful practices to enhance long-term sustainability and resilience.

Keywords: Ecology, Food Security, Climate Change, Faith-Based, Household, Community

1.0 Introduction

Climate change poses a significant threat to agricultural systems and food security across Sub-Saharan Africa, with Zambia being no exception. Ongoing shifts in rainfall patterns, recurrent droughts, and extreme weather events undermine crop yields and compromise household food access, particularly among smallholder farmers who depend predominantly on rain-fed agriculture (Zembe, Nemakonde & Chipangura, 2022, p. 2). Scholars argue that adapting agricultural systems to climate variability is critical for sustaining food production and rural livelihoods (Barasa et al., 2021, p. 3). Within this context, Climate-Smart Agriculture (CSA) has emerged as a leading

empirical framework designed to enhance productivity, strengthen resilience, and reduce vulnerability to climatic shocks while contributing to food security outcomes (Abegunde & Obi, 2022, p. 2).

Empirical research indicates that CSA practices, including drought-tolerant varieties, conservation tillage, and integrated soil and water management, can significantly stabilise yields and improve household food security under variable climatic conditions (Rurii & Nzengya, 2026, p. 5). However, adoption remains uneven due to socio-economic constraints and limited institutional support (Rurii & Nzengya, 2026, p. 6). The integration of climate adaptation with community development by faith-based organisations in Zambia is a relatively recent but steadily growing initiative. Its emergence can be traced to the broader global and African recognition of the ecological crisis and the moral responsibility of religious institutions to respond. According to Magezi (2024, p. 7), churches and faith communities have increasingly engaged with environmental issues as part of their theological mandate of stewardship, particularly in the context of climate change and its social impacts. This shift became more visible in the late 2010s and early 2020s, as climate-related challenges such as droughts, food insecurity, and environmental degradation intensified across Zambia. This article assesses the design and implementation of the Council of Churches in Zambia's (CCZ) Climate Change Programme and examines its influence on food security, offering an empirically grounded critique of how faith-based climate interventions can contribute to resilient food systems.

Climate change has become one of the defining development challenges of the twenty-first century, with far-reaching consequences for agriculture and food security, particularly in Sub-Saharan Africa. The Intergovernmental Panel on Climate Change (IPCC) observes that rising temperatures, more frequent droughts, and changing rainfall patterns are already undermining food systems in low-income countries that depend heavily on climate-sensitive livelihoods (IPCC, 2014, p. 488). In Zambia, agriculture remains the main source of livelihood for the majority of the population, yet it is predominantly rain-fed and therefore highly vulnerable to climatic variability. Empirical studies indicate that climate change has significantly reduced crop yields in Southern Africa, increasing the risk of household food insecurity and poverty (Challinor et al., 2018, p. 20). Maize, Zambia's staple crop is particularly sensitive to rainfall fluctuations and temperature increases, making rural households more exposed to hunger during periods of drought and delayed

rains (FAO, 2016, p. 3). As a result, climate change is no longer only an environmental concern but a social, economic, and moral issue that directly affects human well-being and dignity.

In response to these challenges, various adaptation strategies have been promoted, including Climate-Smart Agriculture (CSA), conservation farming, and sustainable land management. Scholars argue that effective adaptation requires not only technical solutions but also strong institutions, community participation, and locally grounded approaches (Arslan et al., 2014, p. 6). Within this context, faith-based organisations have emerged as important development actors due to their deep community presence, moral authority, and ability to mobilise collective action**.**

Change, Food Security, and Faith-Based Engagement

In this part, the researchers seek to understand the impact of food insecurity in sub-Saharan Africa and the causes, as well as how faith-based organisations are involved in these issues to ensure that there is enough food in the country.

Climate Change

Climate change refers to long-term shifts in temperature and weather patterns caused largely by human activities. It threatens food security by reducing crop yields, increasing droughts, and disrupting livelihoods, making it a critical concern for sustainable development and human survival. In this regard, climate change and food security are deeply interconnected challenges, particularly in Sub-Saharan Africa, where livelihoods depend largely on climate-sensitive agricultural systems. Climate change affects food security by disrupting rainfall patterns, increasing the frequency of droughts and floods, and accelerating land degradation, all of which reduce agricultural productivity and household resilience (IPCC, 2014, p. 488). Wheeler and von Braun (2013, p. 509) emphasise that climate change threatens all four pillars of food security: availability, access, utilisation, and stability, thereby increasing vulnerability among already marginalised populations. In Zambia, these impacts are especially pronounced due to the dominance of rain-fed smallholder farming. The Food and Agriculture Organization notes that even small shifts in rainfall timing can result in significant yield losses, particularly for maize, the country's staple crop (FAO, 2016, p. 3). As climate shocks become more frequent, rural households face recurring food shortages, reduced dietary diversity, and declining incomes. Scholars argue that addressing food insecurity in such contexts requires adaptation strategies that

go beyond technical interventions to include social, institutional, and cultural dimensions (Arslan et al., 2014, p. 6). However, faith-based engagement has increasingly been recognized as a critical yet underutilized dimension of climate change and food security responses. Faith-based organisations (FBOs), particularly churches, are deeply embedded in local communities and often enjoy high levels of trust, legitimacy, and moral authority. De Gruchy (2016, p. 45) observes that churches in Africa function not only as spiritual centres but also as social institutions that shape values, behaviour, and collective responsibility. This positioning enables them to mobilize communities effectively around issues such as environmental care and sustainable livelihoods.

Food Security

Food security is a central development concern, particularly in low-income and agrarian economies where livelihoods are closely tied to environmental conditions. The Food and Agriculture Organization (FAO) defines food security as a "situation in which all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO, 2008, p. 1). This definition highlights that food security extends beyond food production to include access, utilization, and stability over time.

Scholars commonly conceptualise food security through four interrelated pillars: food availability, food access, food utilisation, and food stability (Wheeler & von Braun, 2013, p. 509). Food availability refers to the presence of adequate food supplies through production, distribution, or exchange. Food access concerns the ability of households to obtain food through income, markets, or social networks. Food utilization relates to the nutritional quality of food and the capacity of individuals to absorb nutrients, while food stability addresses the consistency of access and availability over time, particularly in the face of shocks such as droughts or economic crises.

In Sub-Saharan Africa, food insecurity remains widespread due to a combination of structural and environmental factors. Climate change has intensified existing vulnerabilities by disrupting agricultural systems, reducing crop yields, and increasing the frequency of extreme weather events (IPCC, 2014, p. 488). In countries like Zambia, where smallholder farmers rely heavily on rain-fed agriculture, even minor variations in rainfall patterns can lead to significant food shortages at household and community levels (FAO, 2016, p. 3). Maize production, which forms the backbone

of Zambia's food system, is particularly sensitive to drought and temperature stress. Beyond climate factors, food insecurity is shaped by poverty, limited access to productive resources, weak market systems, and inadequate institutional support. Barrett (2010, p. 826) argues that chronic food insecurity is often rooted in structural inequalities that limit people's ability to respond effectively to environmental and economic shocks. As a result, food insecurity should be understood not merely as a failure of food production, but as a broader development challenge linked to social justice, governance, and resilience.

Faith-Based Engagement

Theologically, many Christian traditions emphasize stewardship of creation, viewing humanity as caretakers rather than exploiters of the environment. Conradie (2015, p. 112) argues that "ecological stewardship is central to Christian ethics and provides a moral framework for engaging climate change". This entails that, when climate adaptation and food security initiatives are framed within faith teachings, communities may perceive them not merely as development projects but as expressions of faith and obedience to divine responsibility. This moral framing is enhancing participation, compliance, and long-term commitment to sustainable practices. Moreover, empirical studies suggest that faith-based climate initiatives strengthen community cohesion and promote locally owned adaptation strategies, while Magezi (2020, p. 7) notes that, "churches often serve as platforms for knowledge sharing, mutual support, and collective action, particularly in rural settings where formal institutions have limited reach". As in Zambia, church networks extend into remote areas, making them effective channels for climate education, conservation farming training, and food security interventions. However, despite their potential, faith-based contributions to climate change and food security remain insufficiently documented in academic literature. Many national climate policies focus primarily on state and market actors, overlooking the role of religious institutions (Glaab, 2017, p. 6) This is because there is not much information on what faith-based organizations are doing toward food security. Only a few scholars have written about it. For example, in Zambia, the Council of Churches, along with other church mother bodies such as the Bible Society, the Church Health Association (CHAZ), and Theological Education by Extension (TEEZ), are undertaking many initiatives to ensure food security in the country; however, there is still limited scholarly documentation on these efforts. This gap underscores the

need for empirical studies that assess how faith-based engagement influences food security outcomes and contributes to broader climate resilience efforts.

2.0 Statement of the Problem

Despite growing global and national awareness of climate change and its implications for agriculture, food insecurity continues to affect a significant proportion of Zambia's population, particularly in rural areas where livelihoods depend largely on rain-fed farming. Zambia has experienced increasing climate variability marked by prolonged droughts, delayed onset of rains, and episodes of flooding, all of which disrupt agricultural production and household food availability. Scholars like Challinor note that climate-induced shocks have eroded the coping capacity of smallholder farmers, leading to declining yields, reduced incomes, and heightened vulnerability to hunger (Challinor et al., 2018, p. 14; FAO, 2016, p. 5). Therefore, various adaptation strategies have been introduced to mitigate these impacts, their effectiveness at community level remains uneven and, in many cases, limited. Government-led and donor-driven climate and food security interventions in Zambia have often focused on technical solutions such as improved seed varieties, fertilizer support, and conservation agriculture. Although these initiatives have achieved some positive outcomes, studies suggest that many programmes struggle with long-term sustainability due to limited community ownership, inadequate follow up and weak integration of local knowledge systems (Muzari, Gatsi & Muvhunzi, 2012, p. 9). In some instances, interventions are externally designed and implemented, resulting in low adoption once project funding ends. This challenge is particularly pronounced in rural communities where social structures, cultural values, and trust-based institutions play a critical role in shaping behavioural change.

Within this context, faith-based organisations have emerged as potentially significant actors in climate change adaptation and food security efforts. Churches are deeply embedded in Zambian communities and often command moral authority, social trust, and extensive grassroots networks. De Gruchy (2016, p. 47) argues that, "faith institutions possess unique social capital that can support collective action, promote ethical responsibility, and sustain community engagement beyond the lifespan of donor-funded projects". However, despite their growing involvement in development work, faith-based climate interventions remain under-examined in empirical research, particularly with regard to measurable food security outcomes.

The Council of Churches in Zambia has been implementing its Climate Change Programme since the early to mid-2010s, a period during which the impacts of climate variability on agriculture and livelihoods in Zambia became increasingly evident. Over approximately a decade, the programme has evolved to bridge the gap between environmental sustainability and community livelihoods by integrating climate-smart agricultural practices with faith-based mobilization and theological reflection on stewardship and care for creation (Phiri, 2017, p. 112; Magezi, 2024, p. 58). This gradual development reflects a broader shift among faith-based organizations in Africa toward holistic approaches that combine ecological responsibility with socio-economic transformation.

In this regard, this implementation seeks to bridge the gap between environmental sustainability and community livelihoods by integrating climate-smart agricultural practices with faith-based mobilisation and theological reflection on stewardship and care for creation. The programme uses churches as entry points for training, awareness-raising, and community organization, aiming to strengthen resilience while fostering local ownership. Despite the programmer's relevance and reach, there is limited empirical evidence assessing whether and how these interventions translate into tangible improvements in food security at household and community levels.

The absence of systematic analysis of the CCZ Climate Change Programme represents a critical knowledge gap. Without rigorous documentation and evaluation, it is difficult to determine the programmers' effectiveness, identify its strengths and limitations, or assess its contribution to broader national climate resilience and food security goals. Scholars caution that without evidence-based evaluation, promising community-led initiatives risk being overlooked in policy and development planning (Wheeler & von Braun, 2013, p. 511). This gap also limits opportunities for learning, replication, and scaling up of successful faith-based approaches.

Furthermore, the lack of empirical evidence on church-led climate interventions constrains dialogue between faith institutions, government agencies, and development partners. Policymakers require credible data to integrate non-state actors into national strategies, while donors increasingly demand accountability and measurable impact. In the absence of such evidence, faith-based programmes like the CCZ's may remain marginal to formal food security and climate adaptation frameworks, despite their potential to contribute meaningfully to sustainable development.

Therefore, the central problem addressed in this study is the insufficient empirical understanding of the impact of the CCZ Climate Change Programme on food security in Zambia. Addressing this gap is essential for strengthening climate adaptation strategies, enhancing community-centered development, and recognizing the role of faith-based organisations in building resilient and food-secure communities.

3.0 Purpose of the Study

The purpose of this study is to examine the impact of the Council of Churches in Zambia's Climate Change Programme on food security in selected communities. The study focuses on the design and implementation of the programme and how these influence food availability, resilience, and adaptive capacity at household and community levels.

3.1 Objectives of the Study

The overall objective of this study is to examine the impact of the Council of Churches in Zambia (CCZ) Climate Change Programme on food security in selected communities in Zambia. The study seeks to understand how the design and implementation of faith-based climate interventions contribute to improved household food security and community resilience in the context of increasing climate variability.

Specifically, the study aims to analyses the design of the CCZ Climate Change Programme, focusing on its goals, strategies, and integration of climate change adaptation principles with theological perspectives on environmental stewardship. The study also seeks to assess the implementation processes of the programme at the community level, including the role of churches, local leadership, and community participation in programme activities.

In addition, the study aims to evaluate the influence of the CCZ Climate Change Programme on key dimensions of food security, including food availability, access, stability, and resilience among beneficiary households. This involves examining changes in agricultural practices, adaptive capacity, and community responses to climate-related shocks.

Finally, the study seeks to identify challenges, lessons learned, and best practices arising from the programmer's implementation. By doing so, the study intends to generate insights that can inform policymakers, development practitioners, and faith-based organisations on the potential

contribution of church-led climate initiatives to sustainable food security and climate resilience in Zambia.

Design and Implementation of CCZ's Climate Change Programme on Food Security

CCZ Climate Change Programme

The design of the Council of Churches in Zambia (CCZ) Climate Change Programme reflects an evolving attempt to integrate ecological concern with community development and faith-inspired mobilization. Although CCZ's official programme list (Emergency & Development, Social Justice, Gender & Health, Education, Youth, Children) does not explicitly name climate change as a standalone department, the council has used its existing programme structures to embed environmental action within broader development goals, signalling an intentional, cross-cutting design (CCZ, 2026).

At its heart, CCZ's programme design is shaped by the understanding that climate change is not merely an environmental issue but also a human and moral concern that deeply affects community well-being, especially food security. This perspective aligns with a broader, faith-based approach to development where ecological stewardship is part of Christian responsibility (De Gruchy, 2016, p. 45). Churches under CCZ have historically participated in environmental justice initiatives and were among the early faith actors in Zambia to begin integrating climate change discourse into their development work, combining advocacy, education, and community training. The beneficiaries are mainly local communities across Zambia, particularly smallholder farmers and vulnerable households who are directly affected by climate change. These communities benefit from improved knowledge and skills in climate-smart agriculture, enhanced awareness of environmental sustainability, and increased resilience to climate-related challenges such as drought and food insecurity. Indirect beneficiaries include the wider society, as these initiatives contribute to environmental conservation, food security, and sustainable livelihoods at a broader level. (Ngaba in Inter Press Service, 2014).

A key design element of the CCZ Climate Change Programme is collaboration with partners that bring climate, legal, policy, or advocacy expertise. For example, CCZ's engagement with the All-Africa Faith Actors Network on Climate Justice (AFAN-CJ) and consultations with the Ministry of Green Economy and Environment indicate a deliberate strategy to align faith perspectives with

national policy dialogues, providing legitimacy and visibility for community concerns (CCZ, 2025). This collaborative design recognizes that climate change responses must be multi-stakeholder, linking local practice to national and continental climate frameworks. Programme design also emphasizes community empowerment and capacity building. Evidence from CCZ's own activities, such as annual reports, shows targeted interventions like community sensitisation campaigns, beneficiary mapping, and climate ambassador training activities aimed at equipping community members with knowledge that can underpin long-term behavioural change (CCZ (ACT Alliance, 2018, p. 22). By involving local stakeholders, particularly women and youth, the programme attends to both social inclusion and ecological resilience.

Another design characteristic is its implicit integration of climate-smart practices within broader livelihood strategies. While not always articulated explicitly as "food security" in programme documents, design elements such as conservation farming and land rehabilitation are consistent with responses to climate impacts on agriculture, especially in drought-prone districts (CCZ Annual Report, 2020).

However, the programme design also reflects adaptive learning. Early engagement by CCZ in climate justice sometimes focused on broader policy advocacy and awareness, over the past 10 years, there has been a shift toward on-the-ground adaptation support, indicating an evolution from conceptual engagement to practical, community-oriented design. In sum, the CCZ Climate Change Programme is designed around faith-integrated ecological stewardship, multi-stakeholder collaboration, community capacity building, and adaptive practice, with a clear intention to bridge spiritual motivation, community development needs, and climate resilience goals. This design, while still under study, presents a model where religious institutions contribute meaningfully to climate-related food security interventions.

Analysis of Implementation Strategies Used by the CCZ at Community Level

The Council of Churches in Zambia (CCZ) has adopted implementation strategies that emphasize participatory engagement, capacity building, collaboration, and practical responses to climate change at the grassroots. These strategies are grounded in both Christian stewardship values and recognized best practices in community development, enabling faith communities to engage directly with environmental and food security challenges.

(i) Participatory Identification and Beneficiary Mapping

A key strategy in CCZ's implementation is the active involvement of community members in project identification and planning. In the 2020 Climate Change Mitigation, Adaptation, and Resilience project in Zambezi District, CCZ conducted stakeholder engagement and community mapping to select beneficiaries, ensuring interventions responded to locally identified priorities (CCZ, 2020, p. 17). Through this process, 200 women and girls were selected as primary beneficiaries, which demonstrates a participatory approach designed to empower vulnerable groups and foster ownership (CCZ, 2020, p. 17). This strategy aligns with development frameworks that value bottom-up planning: when communities participate in selecting beneficiaries and shaping project focus, the interventions tend to resonate more with lived realities and local needs, reinforcing both relevance and sustainability.

(ii) Training and Empowerment through Climate Ambassadors

CCZ's implementation places significant emphasis on capacity building at the community level. In Zambezi District, for example, 20 women and girls are being trained as climate ambassadors tasked with disseminating climate knowledge and practices within their communities (CCZ, 2020, p. 17). Training local climate ambassadors serves two strategic functions: strengthening local leadership and ensuring that climate education and adaptation strategies are locally anchored and culturally relevant. By investing in ambassadors drawn from the community, CCZ promotes sustained behavioural change from understanding climate risks to adopting climate-smart agricultural practices and conservation efforts.

(iii) Community Sensitization and Awareness Campaigns

CCZ implements community sensitization campaigns as part of its strategy to raise awareness about climate change impacts and adaptive practices. In Zambezi District, over 150 households were reached with climate change information through targeted outreach activities (CCZ, 2020, p. 17).

Such campaigns are crucial in contexts like Zambia, where misunderstandings about the causes and consequences of climate variability persist (Ngaba, 2014). For example, some rural communities interpret climate shocks through spiritual or fatalistic lenses, which can limit proactive adaptation. By combining education with faith-based framing, CCZ helps communities reinterpret climate change as a shared challenge requiring deliberate action, not passive acceptance.

(iv)Partnerships for Wider Reach and Technical Support

CCZ's implementation strategy also relies on collaborations with external partners to reinforce technical capacity and broaden impact. The organization has worked with networks like the All-Africa Faith Actors Network on Climate Justice (AFAN-CJ) to organize tree-planting exercises and youth engagement event**s** that promote climate justice and environmental stewardship (CCZ Programme Activities). These partnerships enhance CCZ's capacity to mobilize resources, share expertise, and situate local climate action within broader national and continental dialogues. By engaging partners and government stakeholders, CCZ strengthens the legitimacy of its interventions and opens pathways for policy dialogue that can support community priorities.

(v) Practical Environmental Actions Linked to Adaptation

Beyond knowledge sharing, CCZ supports practical environmental activities that directly address climate and food security challenges. For example, CCZ and partners have organized tree-planting events, including the planting of 120 trees in collaboration with AFAN-CJ to promote climate justice and environmental sustainability (Programme Activities). Tree planting not only contributes to ecosystem restoration but also supports soil fertility and microclimate regulation factors essential for sustainable agriculture and food production. Although not always explicitly framed as food security interventions, such activities contribute indirectly to resilience by improving environmental conditions that underpin agricultural productivity.

Programs' Influence on Food Security among Participating Communities

The influence of the Council of Churches in Zambia (CCZ) Climate Change Programme on food security must be understood within the broader context of climate and agriculture dynamics in Zambia. Climate change has severely disrupted traditional rain-fed agriculture in much of the

country, contributing to reduced crop yields and rising food insecurity, especially during dry spells and droughts (Wheeler & von Braun, 2013, p. 509; CGIAR/WFP, 2024). Smallholder farmers, who provide the bulk of Zambia's food supply, often face production declines when rains fail or come too late. Consequently, any community intervention that successfully enhances adaptive practices is likely to affect local food security.

CCZ's implementation strategies are designed to strengthen resilience at the community level through awareness, training, and locally-relevant climate adaptation actions that overlap with food security outcomes. For example, participatory engagement and training of climate ambassadors in Zambezi District helped shift community knowledge and behaviour about climate risks and adaptation practices such as improved planting techniques and soil conservation (CCZ, 2020, pp. 17–18). This form of community education has increased the adoption of climate-smart agricultural practices, which studies in Zambia show to be strongly linked with increased crop productivity and resilience over the past decade. In the Eastern Province, for instance, research on climate-smart agriculture revealed that farmers practising techniques like crop rotation and soil water management saw statistically significant increases in maize yields compared with before adoption, bolstering their food stocks and livelihood stability. These include:

Maize yields – the amount of maize harvested per unit of land (e.g., kilograms or tonnes per hectare) increased compared to levels before adopting practices such as crop rotation and soil-water management.

Crop productivity – overall farm output improved, meaning farmers produced more food from the same or smaller pieces of land.

Food stocks – the quantity of food stored by households increased, indicating improved food availability over time.

Household livelihood stability – while not always measured in exact units, this reflects increased income, reduced vulnerability, and more consistent access to food. (Nanyangwe & Tembo, 2024, p. 88).

Awareness campaigns and the training of local leaders help increase uptake of adaptive farming, which is directly related to food availability and stability, critical food security dimensions (FAO,

2008, p. 1). Such behavioural change initiatives are now widely recognised as effective in Zambia; recent partnerships that blend local learning with climate-smart training have produced examples where average yields increased by 60 % and profits by about 40 % among participating households (FAO/SIFAZ, 2025).

Importantly, CCZ's faith-based framing also strengthens the social dimension of food security. By integrating stewardship and Christian teaching with practical strategies, CCZ fosters moral motivation and community cohesion that can support the sustained adoption of new practices. While quantitative impact data for CCZ alone are limited, insights from faith-linked climate work in Zambia highlight that churches facilitating both education and action can improve community responsiveness to climatic stressors, a component of food stability and access (Ngaba, 2014).

Additionally, CCZ's partnerships, especially in community planning and resource mobilization, help link local food security concerns with broader policy and resource networks (CCZ/AFAN-CJ consultation, 2023). Such linkages improve access to information, climate services, and potential resources that strengthen the resilience of agricultural systems, particularly important in drought-prone districts where smallholders frequently operate at the edge of food insecurity.

Nevertheless, it is essential to note that direct empirical evidence quantifying CCZ's specific food security impacts remains limited in published literature. What exists instead are credible indicators and proxy evidence showing that community climate engagement and climate-smart agricultural adoption improve crop performance, adaptive capacity, and resilience, all central to food security (Nanyangwe & Tembo, 2024; FAO/SIFAZ, 2025). When integrated with the participatory methods of the Council of Churches in Zambia, local ownership of adaptation strategies translates into more stable food production, greater preparedness for climate shocks, and improved livelihood outcomes.

Challenges and Lessons Arising from the Programmes Implementation

The implementation of the Council of Churches in Zambia (CCZ) Climate Change Programme has generated valuable insights into the opportunities and constraints of faith-based climate and food security interventions. While the programme has demonstrated potential in mobilizing communities and integrating climate awareness with local values, several challenges have emerged that shape both its effectiveness and sustainability.

One major challenge relates to resource limitations at the community level. Like many civil society initiatives in Zambia, CCZ's climate programme has largely depended on external donor funding, which is often short-term and project-based. This funding structure can constrain continuity, limit scale-up, and weaken long-term planning (Chinsinga, 2012, p. 245). In some participating communities, activities such as training workshops, demonstration plots, or monitoring visits were affected by inadequate financial and material resources. As a result, promising adaptation practices were sometimes implemented unevenly or discontinued once project support declined.

A second challenge concerns variations in community capacity and engagement. Although churches provide an important mobilization platform, not all congregations possess equal organizational strength or leadership commitment. In some cases, climate activities were driven by a few enthusiastic individuals rather than broad community ownership. Research on community-based adaptation in Southern Africa indicates that weak local institutional capacity can reduce programme impact, even when awareness levels are high (Dodman & Mitlin, 2013, p. 646). This highlights the difficulty of translating climate knowledge into consistent behavioural change, especially where poverty, labour constraints, and immediate livelihood pressures dominate decision-making.

The programme also faced challenges linked to climate variability itself. Increasingly unpredictable rainfall patterns, prolonged droughts, and occasional floods undermined agricultural outcomes in certain seasons. Even where farmers adopted climate-smart practices, extreme weather events sometimes offset gains, reinforcing farmer scepticism about new methods (Arslan et al., 2015, p. 5). This demonstrates that adaptation programmes operate within broader ecological limits and must be complemented by supportive national policies and climate risk financing mechanisms. Despite these challenges, several important lessons emerge from the programmer's implementation. First, faith-based engagement enhances legitimacy and trust. CCZ's use of Christian teachings on stewardship, care for creation, and collective responsibility helped frame climate action as a moral and spiritual concern rather than a purely technical issue. This value-based approach strengthened participation and aligns with findings that faith institutions can motivate sustained social action when interventions resonate with local beliefs (Golo and Yaro, 2013, p. 54). The programme demonstrates the importance of participatory and locally grounded approaches. Where communities were actively involved in planning, training, and peer learning,

adaptation practices were more likely to be adopted and maintained. This reinforces the lesson that climate and food security programmes must move beyond top-down models toward approaches that recognize indigenous knowledge and lived experience (FAO, 2018, p. 21).

The programme underscores the need for strong monitoring and documentation systems. Limited empirical data on food security outcomes make it difficult to measure impact conclusively. Strengthening community-level data collection and integrating qualitative and quantitative indicators would enhance learning, accountability, and policy influence.

3.2 Significance of the Study

This study contributes to academic discourse on climate change and food security by highlighting the role of faith-based organisations in climate adaptation. It provides empirical insights that may inform policy makers, development practitioners, and church institutions seeking sustainable and community cantered responses to climate change. The findings may also assist the CCZ and similar organisations in strengthening programme design, implementation, and long-term sustainability.

Conclusion

In conclusion, the article has successfully reflected on how the CCZ Climate Change Programme demonstrates significant potential to contribute meaningfully to food security and climate resilience in Zambia, particularly within rural and church-based communities that are often at the frontline of climate vulnerability. By integrating faith-based mobilization with practical climate adaptation strategies, the programme offers a distinctive model that addresses not only the technical dimensions of climate change but also its social, ethical, and spiritual implications. This holistic approach enhances community trust, participation, and moral commitment to environmental stewardship, which are critical for sustaining long-term behavioural change.

However, realizing this potential requires deliberate and sustained investments in key areas. Strengthening community capacity remains essential to ensure that local actors are not merely beneficiaries but active drivers of adaptation initiatives. Improved monitoring and evaluation systems are equally important, as they enable the documentation of tangible food security outcomes, facilitate learning, and enhance accountability to both communities and policymakers. Without robust evidence, the programmer’s contributions risk remaining under-recognised within

national climate and agricultural policy frameworks. Furthermore, diversifying funding sources and strengthening partnerships with government institutions, research bodies, and the private sector would enhance the programmer's sustainability and scalability. Inclusive participation, particularly of women and youth, must also be prioritised to ensure that climate adaptation efforts reflect the realities of those most affected by food insecurity and who play central roles in agricultural production. Such inclusivity strengthens social equity and improves the effectiveness of adaptation strategies.

Ultimately, the CCZ Climate Change Programme illustrates the important role that faith-based organisations can play in addressing complex development challenges such as climate change and food insecurity. By aligning theological principles of stewardship, justice, and care for creation with evidence-based climate action, CCZ can continue to shape community responses and influence national discourse. As Zambia confronts increasing climate variability and food system pressures, faith-based initiatives like the CCZ Climate Change Programme have the potential to serve not only as complementary actors but as transformative partners in building resilient, food-secure communities.

4.0 Recommendations

Based on the findings of this study regarding the design, implementation, and influence of the Council of Churches in Zambia (CCZ) Climate Change Programme on food security, several recommendations are proposed to strengthen future programming, policy engagement, and research. These recommendations are directed at CCZ, faith-based organisations, policymakers, development partners, and researchers working at the intersection of climate change and food security in Zambia.

1. Strengthen Community Ownership and Local Institutional Capacity

One of the most critical recommendations is the need to deepen community ownership of climate and food security initiatives. While churches offer an effective mobilization platform, greater emphasis should be placed on strengthening local leadership structures, farmer groups, and church-based committees to manage activities independently over time. Community-based adaptation literature consistently shows that interventions rooted in strong local institutions are more sustainable and resilient to external shocks (Dodman & Mitlin, 2013, p. 648). CCZ should

therefore invest more deliberately in leadership training, governance skills, and participatory planning processes that empower communities to take responsibility for programme continuity beyond donor funding cycles.

2. Enhance Integration of Climate-Smart Agriculture with Indigenous Knowledge

The programme should further integrate climate-smart agricultural practices with indigenous knowledge systems that communities already trust and understand. Research in Zambia and Southern Africa demonstrates that adaptation strategies are more likely to be adopted when they build on local farming practices rather than replacing them entirely (Muzari, Gatsi and Muvhunzi, 2012, p. 10). CCZ can facilitate learning exchanges where farmers share successful local practices, such as traditional soil conservation methods, intercropping, and drought-resilient crops, and align these with scientific climate-smart approaches. This hybrid model would enhance relevance, cultural acceptance, and long-term uptake.

3. Improve Monitoring, Evaluation, and Documentation of Impact

A significant gap identified in this study is the limited availability of systematic data demonstrating the programmer's impact on food security outcomes. It is therefore recommended that CCZ strengthen its monitoring and evaluation (M&E) framework by incorporating both qualitative and quantitative indicators related to food availability, access, and stability. FAO (2008, p. 1) emphasizes that food security is multidimensional and cannot be measured solely through production figures. Regular household surveys, seasonal yield assessments, and participatory impact evaluations would improve accountability, learning, and policy influence. Strong documentation would also enable CCZ to contribute more effectively to national and regional climate policy debates.

4. Diversify Funding Sources to Enhance Sustainability

The sustainability of the CCZ Climate Change Programme remains vulnerable due to heavy reliance on donor funding. It is recommended that CCZ explore diversified funding strategies, including partnerships with local private sector actors, agricultural cooperatives, and government extension services. Chinsinga (2012, p. 246) notes that overdependence on external funding often weakens programme continuity in Southern Africa. By engaging multiple funding streams and

advocating for inclusion in national climate and agricultural budgets, CCZ can reduce financial uncertainty and expand programme reach.

5. Strengthen Policy Engagement and Advocacy at the National Level

Given its moral authority and extensive grassroots presence, CCZ is well-positioned to influence national climate and food security policy. The study recommends that CCZ strengthen its advocacy role by translating community experiences into policy-relevant evidence and engaging consistently with government institutions such as the Ministry of Agriculture and the Ministry of Green Economy and Environment. Faith-based advocacy has been shown to shape public discourse and policy priorities when grounded in credible evidence and ethical narratives (Golo & Yaro, 2013, p. 55). Aligning programme objectives with national strategies such as Zambia's National Adaptation Plan would enhance policy coherence and impact.

6. Promote Gender and Youth Inclusion in Climate and Food Security Programming

Future programme implementation should place stronger emphasis on the inclusion of women and youth, who are disproportionately affected by food insecurity, yet play critical roles in agricultural production. Studies in Zambia indicate that women farmers often face barriers to accessing resources, training, and decision-making platforms, limiting the effectiveness of adaptation initiatives (Arslan et al., 2015, p. 6). CCZ should design targeted interventions that support women-led farming groups and youth innovation in climate-smart agriculture, ensuring that adaptation strategies are equitable and socially inclusive.

7. Foster Learning Partnerships and Research Collaboration

Finally, it is recommended that CCZ establish partnerships with universities, research institutions, and theological colleges to support continuous learning and the generation of evidence. Collaborative research would enhance the programmer's credibility and help close the knowledge gap regarding faith-based climate interventions. According to Wheeler and von Braun (2013, p. 512), effective responses to climate-related food insecurity require interdisciplinary approaches that combine social, environmental, and ethical perspectives. Such partnerships would also strengthen the theological grounding of climate action, reinforcing stewardship narratives within faith communities.

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