African-initiated churches and environmental care in Limpopo, South Africa: A missional enquiry

Climate change in South Africa is increasingly threatening the most vulnerable populations in rural areas of the country, such as the Limpopo province. Religious communities could be important actors in South Africa, and their role in sustainable development could be critical. Research on the capacities of religious communities for climate change adaptation is vital for reaching the United Nations Sustainable Development Goals 13, 14 and 15. This article drew on empirical research focusing on adaptive practices to climate change. It asked the following question: how do African Independent and Pentecostal churches located in the province of Limpopo relate to climate change in their communal and individual activities? To answer this question, qualitative semistructured individual interviews, group interviews and results from focus groups were used for data collection. The research learned that eco-theology is not the most prominent topic in the majority of the participants’ congregations and their communal activities. However, all the participants had noticed the effects of climate change in their immediate surroundings. As a consequence, these individuals took care of their surrounding environments. Focus groups were formed with the hope of consolidating individual efforts into a collective toolkit. This article concluded that the majority of the research participants are not knowledgeable about climate change as a concept. However, they are cognisant of the impact climate change has on them.

Intrdisciplinary and/or interdisciplinary implications: This article was practical theology research. It was strengthened by research findings from agricultural sciences, ecology, development sciences, misiology and intercultural theology to propose an eco-theology from below based on individual adaptive measures to climate change.

Keywords: adaptive practices; AIC; climate change; eco-theology; collective toolkit; religious communities.

Introduction

Climate change in South Africa is increasingly threatening the most vulnerable populations in rural areas of the country, such as the Limpopo province. The ramifications of climate change seem to be ‘one of the greatest environmental, social, and economic threats and have become a permanent agenda item at many policy-making forums worldwide’ (Nkoana, Belete & Hlongwane 2020b:2). The agricultural economists from the University of Limpopo found that (Nkoana et al. 2020b):

[C]limate change poses threat to South Africa’s agricultural sector, water resources, food security, health, infrastructure, as well as its ecosystem services and biodiversity ascribed to higher temperatures and less rainfall. (p. 2)

This research stresses that some religious communities could be important actors in South Africa which play a role in mitigating the effects of climate change. The Limpopo province is classified as one of the poorest provinces in South Africa. Its church landscape is at the same time dominated by Independent and African Pentecostal Churches (this research considers these churches as one group of African-initiated churches [AICs] because they were founded by Africans in Africa and because they are theologically, financially and structurally independent of churches from the West) (Öhlmann, Frost & Gräb 2020:6) which could be role players in mitigating climate change effects in the region. Limpopo has been one of the provinces hit hardest by climate change in South Africa, with ‘drought and flooding’ being regular occurrences (Nkoana, Belete & Hlongwane 2020a). Research on the capacities of religious communities for climate change adaptation in this region is therefore vital. In South Africa, where approximately 45% of the population belongs to AICs (Öhlmann et al. 2020:11), the role of these institutions in climate adaptation could be critical. Churches as resourceful societal actors that have members, contacts,
in some cases buildings and organisational structures available to their causes can play a role in the ‘crucial protection of the planet’ that is needed nowadays (Van der Westhuizen 2021:2). To mitigate the impact of climate change in the future, and also to adapt to the already occurring consequences of climate change today, ‘environmental and social change is required’ (Van der Westhuizen 2021:3). Pope Francis (2015:5) invites everyone, starting from his own Catholic Church, to ‘protect our common home’, the Earth, in seeking its ‘sustainable and integral development’. The Reformed missiologist Nelus Niemandt (2015:1) believes that ‘the time is long past to exclude the environment from the missiological agenda’. According to him (Niemandt 2015):

God’s mission encompasses the cosmos; therefore, Christian mission includes all of God’s created order … missiology must assist theology to discern the visceral reality of our material world and our part in it. (p. 2)

These theological convictions from historical mission churches about the role of the church in caring for the planet bear the question of how this may be translated into the establishment of eco-theologies and environmentally friendly activities in AICs, which are critical community stakeholders in the rural communities of the province of Limpopo. Martinus Daneel has written extensively about a project of Earth-care in AICs in Zimbabwe in the Nineties. His accounts of tree-planting Eucharists and other environmental initiatives suggest that some AICs (in Zimbabwe) have been involved intensely with environmental protection campaigns in the past (Daneel 1995). Unfortunately, Daneel’s project ceased once he left the region, but it remains clear from his accounts that the potential of AICs to be agents of environmental change can be fulfilled successfully (Daneel 2006).

This research aimed to investigate how AICs located in the province of Limpopo relate to climate change in their activities and their activity-motivating theologies. This investigation was undertaken by conducting qualitative semistructured individual interviews, group interviews and focus groups for data collection from September to December 2021.

Methodology

Using a qualitative empirical approach, the data collection method consisted of individual interviews, group interviews and focus groups. Individual and group interviews were conducted during September, October and November 2021, while the focus group interviews were conducted in December 2021 at the very end of the data collection process. The research participants were members of congregations in the province of Limpopo, in the rural community of Winterveldt and the township (peri-urban community) of Soshanguve in Gauteng. Because of the coronavirus disease 2019 (COVID-19) restrictions, which limited the researchers’ time in the rural communities of the Limpopo province, the researchers decided to include the two above-mentioned communities for the Gauteng province that had some similarities with the rural communities of Limpopo, which is the focus of this study. These diverse regional backgrounds served to reach a more comprehensive insight into the differences or similarities between the AICs’ reactions to climate change. A total of 62 people from eight congregations participated in the interviews conducted. Of these, only five people were interviewed individually. All others were part of several group interviews.

Additionally, a concluding knowledge exchange workshop was held at the University of Pretoria on the topic of ‘African-Initiated Churches as Actors for Ecological Sustainability in Limpopo, South Africa’, to which all interviewees were invited. Ten research participants attended the workshop and engaged in discussions with renowned scholars, and online audience and each other in the room.

Towards the end of the research, focus groups were formed with some of the previous research participants. All focus groups involved congregations from Limpopo only. The purpose of the focus groups was to circulate the knowledge generated during the interviews by research participants and catalyse action steps to be taken by these churches for environmental adaptation in their communities. These focus groups were led by the methodology of grounded theology that aims to develop ‘a theology of experience and ideologies from below’ (Stevens 2017:203). In the case of this project, the knowledge generated through interviews helped start conversations among the participants about building a toolkit of environmental care practices. It was important to catalyse conversations about personal care of the environment to be transferred to a group such as a congregation or a local community.

The congregations and individuals involved in interviews and focus groups had previously been known by the researchers or the research assistants. This had the advantage of easily building rapport between the researchers and the participants as well as the AIC congregations they represented.

During data collection, individual adults from different gender and age groups were involved. The majority of these participants were women because the majority of ‘churchgoers in South Africa are women’ (Chisale 2018:1). Additionally, it was mostly women who volunteered to be interviewed in the AICs after Sunday services. The role of men and women also differs typically in their exposure to climate risks and their adaptive capacities for climate change. As the report by Parry (2007) points out: ‘Women make an important contribution to disaster reduction, often informally through participating in disaster management and acting as agents of social change’.

One interview was conducted in an urban area because the pastor and his congregation were role modelling eco-theology in their local community of the city of Polokwane in Limpopo.
Ethical considerations
The researchers established a procedure that all the interviews followed. All the research participants had to fill in a consent form before being interviewed. The consent form described the nature and aim of the study. It also included the participants’ rights to privacy (hence this research does not use names), voluntary participation and confidentiality. Ethical approval to conduct this study was obtained from the Research Ethics committee of the University of Pretoria, Faculty of Theology and Religion (Reference number: T056/21), August 2021.

Procedure
The following procedure was used before getting to the interview site:
- The congregation’s pastors were contacted by one of the researchers or an assistant researcher to ask permission for an interview.
- An appointment was made during that first call for a virtual meeting to explain the purpose of the meeting.
- A virtual meeting was held to explain the purpose of the research. During that meeting, the date of the visit of the research team was agreed upon.

During the data empirical field research:
- The research team arrived, usually on a Saturday, at the church and met with the pastor.
- A semistructured interview was conducted and recorded with the pastor at the church premises.
- When invited, the researchers participated in the Sunday service of the churches and made notes on their observations. The researchers were oftentimes invited to introduce themselves to the congregation during the service and to ask for further participants in the research.
- Semistructured interviews were conducted with volunteers from the congregation immediately after the Sunday service.

After the empirical field research at the congregations:
- The recordings from the interviews were translated and transcribed by research assistants from the University of Pretoria.
- The transcripts were analysed by the researchers using qualitative content analysis.

Data analysis
Data analysis was performed using the method of qualitative content analysis using Max Qualitative Data Analysis (MAXQDA) software and generating the following codes: agriculture, COVID-19, poverty, politics, AIC theology-building, relationship with sciences, spirituality of ecology or nature, nature as an acting ‘natural’ principle, God’s command to protect nature, God’s punishment of sins, nature as a communication tool for God, signs of the last days, Devil, creation, concept of climate change and the greenhouse effect, environmental problems in the area, local coping mechanisms for changing environment, traditional environmental rituals, healing, body and experience, reasons for environmental changes or problems, environmental disasters, descriptions of the changing environment, guidance or inspiration, unwanted behaviour, land, activities and tasks of the church, ecological activities in the church, ecological teachings of the church, dominant (theological) topics in the church, self-description of the church and relationship with other churches.

This extensive list shows the variety of topics that participants of the study spoke about when being asked about environmental changes and their adaptation strategies. The coding system was developed in a deductive in vivo coding procedure, and later axial coding was applied to identify the relationship between the topics identified.

Results from interviews
The codes were then grouped into the following categories:

Climate change
All the respondents, except for one group, noticed climate change consequences in their surroundings. The respondents noticed the following changes: unpredictable weather patterns, water shortages and droughts, thunderstorms, lack of rainfall, littering, stagnant water, open sewage, more frequent floods and noticeably higher temperatures in summer and lower temperatures in winter. Few persons mentioned human factors to cause climate change, such as deforestation or air pollution stemming from local mines. Some people mentioned human factors that mitigate the effect of climate change, such as reforestation or avoidance of air pollution. Although almost all respondents noticed climate change consequences, only two respondents reported knowing the global phenomenon of climate change.

Causes of climate change
The respondents mentioned the following as causes of climate change: sin (of the younger generations), disobedience to God and tradition, a sign of God’s punishment, humans. Some respondents mentioned human factors to cause climate change, such as overstepping nature’s boundaries, industrialisation, air pollution, negligence of communal traditional prayer customs to pray regularly for rain and the cutting of trees.

Consequences of climate change
According to some respondents, the consequences of climate change that they noticed in their communities were increasing cases of respiratory illnesses, loss of agricultural sources of income, cessation of subsistence farming, decreasing local economic activities related to decreasing harvests and the need to change diets (e.g. locally grown traditional vegetables could not be grown in subsistence farming anymore), increased food insecurity and poverty and destruction of houses by heavy rains and floods.
Environmental care-related activities

One rural and one urban congregation reported engaging in communal environmental care-related activities to relieve their members of the climate change consequences. These congregations are involved in tree planting, litter clean-up and recycling campaigns, water conservation and training on sustainable farming.

The majority of the respondents were involved with environmental practices as individuals, however. They mentioned being involved in subsistence farming, gardening, water conservation and recycling. One respondent trains middle and high school students in gardening in the province of Limpopo as part of a nonprofit organisation he works for. Another person is studying environmental science through a long-distance learning university course and volunteers at a local primary school where she teaches students about environmental care. These AIC members did not connect their environmental activities to their spirituality, their church activities or missional task as Christians, however. They saw them as a skills impartation exercise aimed at improving the quality of life of their local communities, families and themselves.

The majority of the congregations and individuals interviewed viewed activities such as prayer meetings, weekly home visits of church leaders to their members for emotional and spiritual support in times of hardships, youths and women’s groups, mission-driven conferences and Sunday schools as the priority and focus of their congregations. Few of them mentioned local community-based activities such as the running of day-care centres, health trainings on human immunodeficiency virus and acquired immunodeficiency syndrome (HIV and AIDS) or financial support schemes for their members as important activities of a congregation. Many leaders and members of the AICs interviewed mentioned that their congregation’s activities had been severely limited or stopped since the beginning of the COVID-19 pandemic and that they were expecting these activities to pick up again soon.

Coping or adaptive mechanisms

The respondents used the following adaptive mechanisms to mitigate the negative consequences of climate change around them: irrigation, making fertilisers by digging compost holes in their yards, conserving rainwater in tanks, environmental training to plant more sturdy and local seeds and communal prayers for rain and protection against natural disasters.

One congregation collaborates with the government in the training of local communities about water preservation or conservation; another congregation collaborates with the mainline Christian organisation ‘Farming God’s Way’ on farming, tree planting and reforestation. The other congregations did not report on any collaborations with nongovernmental organisations or governmental bodies for environmental protection.

African-initiated churches’ teachings about nature

Teachings about nature and the environment were only done consistently in two congregations from this research sample. However, it was very commonly reported that there had been sporadic teachings about the need to have a clean environment, gardening as a way to save money and eat healthier, the healing power of some plants and the power of prayer in the stopping of natural disasters from the pulpits of the AICs in the sample.

As a result of COVID-19, some respondents mentioned a heavier reliance on natural medicine such as garlic, ginger and herbs for fumigation. Local community residents were planting more moringa, a plant believed to help alleviate breathing problems, a common symptom of COVID-19. Traditional medicine played a role among respondents when asked about the connection between the environment and their spirituality. These respondents argued that the traditional healing practices that had been followed in the past had resulted in environmental protection for those plants that people relied on for healing.

Reflection

The interviews conducted revealed that individuals are aware of climate change consequences around them and that they are immediately affected by them in their everyday lives. Some of the interviewees have started taking adaptive measures individually. However, most of the AICs participating in this study did not actively protect the environment or adapt to climate change consequences as religious communities. Some exceptions, however, must be highlighted where AICs engaged actively in environmental protection. Studies have shown that adaptation approaches to climate change can reduce the ‘vulnerability’ of local communities (Nkoana, Belete & Hlongwane 2020b:3). These approaches ‘are strategies that permit’ individuals ‘to handle with or adjust to the impacts of the climate’ around them (Nkoana et al. 2020b:36). Adaptation to climate change can be described as ‘the alteration in natural or human systems in response or expected climatic stimuli or their effect, which moderates harm or exploits beneficial opportunities’ (Nkoana et al. 2020b:36). The AICs have the potential to become actors for such adaptation to climate change in their communities, as their members and pastors are oftentimes already actively engaged with environmental protection.

The researchers wonder if the reason why ecology was not mentioned as one of the prioritised topics in the majority of congregations the research participants belong to has to do with the leaders’ awareness of the realities of climate change. Climate change literacy overall is rather low in South Africa. The recent report by the Intergovernmental Panel on Climate Change (IPCC) has described climate change literacy to vary between 20% and 29% among provinces in South Africa (IPCC 2022:39). This general trend in the country is reflected among the interviewees of this
study. Therefore, environmental education could be an important tool to raise awareness (Nkoana et al. 2020a:27–28). In rural communities of provinces such as Limpopo, where agriculture is relied upon for subsistence and survival, awareness about climate change adaptive strategies is critical and AICs could be role-players in them. Such a role alongside other stakeholders could tangibly promote the ‘socio-economic development and sustain livelihoods’ in these communities they serve (Nkoana et al. 2020a:28). One of the ways to help educate church leaders and their congregants is to form focus groups in which the knowledge generated during interviews could help form communities of practice that would involve a congregation and its local community. The goal of a community of practice is to develop a ‘theology from the experience of believers’ (Graham, Walton & Ward 2005:3). In the case of this research, believers could develop eco-theologies from their experiences of climate change and the adaptive strategies they had been taking to mitigate climate changes around them. These communities of practice have the potential ‘to go beyond being descriptive to being generative’ of new knowledge that could benefit a whole congregation or local community (Stevens 2007:204).

**Results of focus groups**

The focus group participants agreed to experiment with the different climate adaptive strategies they use and to help one another in the implementation process. One group decided to meet once a quarter to evaluate their practices. Another group agreed to meet every other month to assess the practices of its members. Both these groups thought that it would be good to gain knowledge about best practices before suggesting to their congregations to prioritise activities supporting environmental protection for the sustainability of their members and fellow community members.

The focus group discussions were a helpful way to generate curiosity and share practices of ecology from individuals from grassroots communities. The focus groups gave a taste of the potential to form communities of practice based on eco-theology that could benefit individuals, congregations and local communities. These communities of practice could consolidate different adaptation strategies into an eco-theology that equips congregants and local communities into better stewards of the environment around them. Such eco-theologies would ‘sustain and preferably expand the current living standards in the face of expected changes in climate trends that may affect people’s livelihoods’ and lives (Nkoana et al. 2020a:36). The commitment to this projected benefit could be a tangible way to express care for the common good because ‘God will hold us accountable for our humanity as much as for our Christianity’ (Wright 2010:49). As members of the body of Christ, we should ‘see active care for creation as a fundamental part of what it means to love and obey God’ (Wright 2010:112). The body of Christ should be challenged ‘to move beyond a narrowly human-centred approach and to focus on the reconciled relationship with all created life’ (Niemandt 2015:5). Therefore, the church is called ‘to campaign for eco-justice, more sustainable lifestyles, and the development of spiritualities that are respectful of the earth’ (Niemandt 2015:5). This stand would be a tangible way to ‘take charge of this home entrusted to us, so that we can protect and serve it’ (Francis 2015:69). It should consistently raise awareness about the importance of ‘environmental preservation’ and help ‘develop knowledge and skills’ for a proactive ‘role-playing in environmental interventions’ (Van der Westhuizen 2021:2).

The hope is that these communities of practice would be fruitful because in the future, climate change will increasingly affect the most vulnerable populations in rural areas of South Africa (Parry 2007:451). Climate change consequences for South Africa are predicted to range from severe droughts and heat waves to storms and floods (Garland et al. 2016).

**Conclusion**

This qualitative research aimed to learn about the climate change awareness of AICs located in the rural communities of Limpopo province. It learned that eco-theology is not a topic preached in the majority of the congregations involved in the research, except for one (the only urban congregation that participated in this research). The researchers were encouraged to learn that almost all of the research participants are aware of the negative effects of climate change around them. They have therefore taken different adaptive measures individually to mitigate the effects of climate change around them and to take care of their environment. These individual knowledges and practices of the research participants have the potential to become eco-theologies from below that could place AICs as proactive participants in mitigating the effects of climate change in local communities. Focus groups were formed to support research participants, who are also congregation members, to talk to one another about adaptive measures to climate change that work for them. Such conversations could lead to a collective toolkit of adaptive measures to climate change in local communities. Conversations in focus groups are continuing beyond this research. The hope is that they would continue to deepen the awareness of the Limpopo province rural communities about climate change and helpful praxes will emerge from these conversations.

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**Competing interests**

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Authors’ contributions
Both authors contributed in equal significance to the empirical research, conceptualising and writing of this article. K.T.L.K. established most of the research contacts and contributed the methodology and empirical work with the focus groups. J.S. contributed the original research idea and questionnaire and the qualitative content analysis of the interview material. Both authors were equally involved in the writing process.

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Data availability
Data sharing is not applicable to this article. The data collected through interviews and focus groups are confidential information available to the authors alone.

Disclaimer
The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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