



Community Perception on the Environmental Conservation Approach Adopted by the Evangelical Lutheran Church in the Northern Diocese, Tanzania

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Abstract: Faith based institutions have the authority and ability to address several issues and being accepted and acted upon by the people of different beliefs, especially by linking with the people's respective faiths. This could be fully utilized in addressing environmental issues, which is one of the most currently debatable global concerns. Given the environmental degradation challenges facing Kilimanjaro region, the Northern Diocese of the Evangelical Lutheran Church in Tanzania started an intervention on tree planting by involving youth enrolled in confirmation classes as a way of promoting environmental conservation behaviour among youths. Since the tree planting programme operate within the community, this study therefore was conducted to explore the way the community perceive this programme, which will determine their participation therein, and success of the programme. A cross-sectional research design was adopted and a random sample of 100 households that had registered their children for confirmation classes in different years from 2003 to 2015 were involved. A Structured questionnaire with Likert scale was used to capture perceptions of households complimented by Focus Group Discussions and Key Informant Interviews. The descriptive and content analysis was adopted. The findings revealed that about 85% of the households had positive perception about the innovative approach adopted by the church. Furthermore, the community members see the programme as part of their household responsibilities and a good approach through which the nature can regain its lost form and provide to them what had been lost. The findings confirm the argument under the theory of self-determination of environmental behavior since despite being the church intervention people perform a tree planting behaviour for their own sake and to gain positive results. In this case, youths got involved in the program so as to graduate from confirmation training while avoiding the negative outcomes that is failure to be confirmed.

Keywords: Perception, Community, Church, Trees Planting, Environment, Conservation, Behaviour, Confirmation

1. Introduction

Despite concerted efforts by scientists and conservation organizations to conserve biodiversity, the efforts have been realised to insufficient in changing behaviour of individuals and institutions. Therefore, environmental degradation has continued to be a challenge worldwide and it needs to be addressed from all possible perspectives to avoid the dangers or effects that can befall the environment. During a press conference, on 15 January 2015, the leader of the Roman Catholic Church in the world, his holy Pope Francis, spoke strongly against environmental degradation and its consequences saying, "God always forgives, we men forgive sometimes, but nature never forgives. If you slap her, she will give you one. I believe that we have exploited nature too much" (Salinas, 2015). This shows clearly that nature should be highly protected and cared because anything that we do by degrading the natural environment has a direct negative effect or effects on us.

The World Wildlife Life Fund (WWF) and the Alliance of Religions and Conservation (ARC) report with a partial survey of 100 protected areas around the world that

including sacred sites as well as sacred areas outside of protected areas that have high conservation values revealed that links between faiths and protected areas are neither unusual nor limited by either geography or faith; rather the links are significant and universal. Since many religious believers seek for guidance from both local and global religious authorities on how to live their daily lives by their larger purposes, involving them lead to better protective measures on nature. For this reason, religious leaders convey to their believers how their values can direct and change their behaviour toward the environment in ways that conserve biodiversity (Higgins-Zogib *et al.*, 2010). Religious faith has the ability to make a distinctive contribution to environmental strategy from a different perspective as opposed to the entire secular disciplines. For instance, scientific thinking is able to give only restricted and value-free direction about the creation, while religious faith and communities can, and have already begun to offer what is missing in science that is a value-laden, combined understanding of creation, humankind and our obligations as stewards of the earth (Rolston III, 2010).



It has been acknowledged that with dwindling support for conservation initiatives, the effective partnerships between religious and conservation groups represent significant untapped potential which can directly support conservation outcomes (McLeod and Palmer, 2015; Awoyemi *et al.*, 2012). This is based on the fact that all individuals have values, attitudes, motivations and judgments, and these are often based in and sanctified by religious beliefs (Awoyemi *et al.*, 2012). Religion may be a more effective way of persuading people to make changes in their daily behaviour, including engaging in activities to influence institutions on behalf of biodiversity. A vivid example is cited among the Muslim fishers in Misali Island, West of Pemba, Tanzania. Once they threatened important turtle nesting sites and delicate coral slopes through dynamite fishing, the government and environmental agencies worked hard to educate the public but it was unsuccessful until the Islamic Foundation for Ecology and Environmental Sciences (IFEES) conducted two environmental ethics workshops based on the Qur'an, in 1998 and 2001. The central message from the Imams to the madrasa teachers and fishermen leaders insisted on the illegitimacy of dynamite fishing according to Islam, whereby the fishermen responded by ending this practice immediately (Gambrill, 2011).

In November 2009, ARC and the United Nations Development Programme (UNDP) joined with 31 faith traditions to launch and celebrate their long-term commitments for a living planet. The parties involved in this celebration came out with a guide to creating a Seven Year Plans (2010-2017) which is based on environmental action, reflection and thought. The guide engaged seven essential areas in which faiths have influences from investments partnerships and media to education and celebration that is, offering ideas on how each can utilize their strengths to take specific steps toward increased protection of the environment (Alliance of Religions and Conservation (ARC), 2011).

Being a religious institution, the Church has a great chance of organizing, mobilizing and utilizing the present resources to combat the problem of environmental degradation which has so far been an issue at stake across different communities in the world. The Church can manage to mobilize environmental conservation at different levels, using the present resources through the persuasion of the community, especially through its members. According to the World Bank (2006), there are three paths through which religion can have its influence on environmental issues, that is through teaching about the environment and natural systems upon which life depends, provision of leadership in initiating practical environmental projects as well as seeking to persuade their members that each individual has a moral responsibility and a role to play somehow to contribute to conservation.

The Northern Diocese (ND) of the Evangelical Lutheran Church, Tanzania (ELCT) has made decision to implement one of the proposed path by World bank by initiating an intervention in environmental conservation through establishment of a tree planting programme. The program is implemented through confirmation students who are enrolled to the classes every year. The program requires every student enrolled to the confirmation class to plant at least ten trees in his or her home area and the performance is assessed after

two years before the confirmation of the youths. In order for the programme to be successful and sustainable, the community has to be well involved hence the Church, ND of the ELCT through its strong leadership strategies offers environmental education, and influences environmental behaviour among its members.

The tree planting programme itself is not something new to the community rather the approach of involving youth who are enrolled in confirmation class stand to be of its kind. Given that the approach is new, its success will depend on how community members who are parents and guardians of the children perceive it. Therefore, this study explored the way the community perceives this programme, which will determine their participation therein, and the success of the programme. The positive community perception of the project at large would shed a good light on their participation. Assessing consumers' perception becomes important since public perception is significant in influencing and shaping peoples' behaviour (Ramirez *et al.*, 2012). This paper, therefore, presents community perceptions on the approach used by the Church in environmental conservation. This study's findings are expected to create a sense of awareness among various stakeholders for the environment in Tanzania and even across the borders especially in promoting environmental conservation at the household level. The entire religious institutions and the community at large will be able to adopt the approach to promote various initiatives to conservation to achieve sustainable environmental conservation.

2.0 Theoretical Framework and Debate

This study has adopted the Self-determination theory of conservation behavior (Deci and Ryan, 1985) that discuss types of causes that motivate behaviour. First, the authors argued that people may perform behaviour because they choose to do so, enjoying behaviors for their own sake. Naturally motivated people develop satisfaction from performing the behavior itself. People who are naturally environmentally sensitized, for instance in the study area where trees mean life, have the behaviour of planting trees for many years. Nevertheless, since the community is not static but dynamic, and due to the needs of the time, it is likely to have some exceptions for instance those who do not care about the environment, leading to a call for building conservation behaviour.

Second, people may act by engaging in a particular behaviour to attain positive outcomes or avoid negative ones. This study is very much in line with this theory under this perspective because by engaging themselves in tree planting people expect to have their environment well conserved as well as other economic benefits that they can get from the trees. On the other hand, they have decided to engage themselves in tree planting to avoid the negative effects of global warming, desertification, and environmental degradation as a whole.

To attain a positive image in front of their Church leaders, the people engaged positively in the tree planting programme. On the other hand, by engaging in the programme they feel a sense of belongingness to the community of believers. By staying aside while others are active in the programme could make one feel like excluding



himself or herself from the community of believers with whom one shares common faith. By engaging in tree planting the people would feel obliged to comply with God's directives to care for the creation, this being their responsibility as stewards to whom the creation is entrusted.

Third, as a result of being motivated, people might perform behaviour even though they are not sure of the positive or negative consequences of their behaviour. According to the theory, personal self-determination leads to increased performance in certain behaviour. Youths in confirmation classes, for instance, might not have predicted the positive or negative outcomes of their engagement in tree planting; yet they keep on being active actors due to the motivation behind them from the Church authority.

This study has adopted the Self-determination theory of conservation behaviour as it concurs with the focus of the tree planting programme which is run by the Church especially relying on the threefold approaches of the theory. The people are mostly likely self-determined to acquire values and norms of the community through the influence of religion as they share one faith which at large has contributed to pushing them into action

3.0 Methodology

The study was conducted in the Northern Diocese (ND) of the Evangelical Lutheran Church in Tanzania (ELCT), in Kilimanjaro Region. The ND of the ELCT was selected because it started engaging youth in a tree planting programme since 2003 hence making it a unique case study. The region is located in the north-eastern part of Tanzania between latitude 2°25' and 4°15' south of the Equator, and longitudinally it lies between 36°25'30" and 38° 10' 45" east of the Greenwich. The region borders with Kenya in the north and Tanga region to the southeast while to the south it shares borders with Arusha Region (URT, 1998). The ND covers most of the area of the region, as it covers four out of six governmental administrative districts.

The field survey was done once at a time employing a multistage sampling procedure from the diocesan level down to parish level. Households that had registered their children for confirmation classes in different years from 2003 to 2015 were taken as the target population. Hai Church was randomly singled out among five church districts of the ND of the ELCT. Two parishes namely Nkweseko and Makuna were randomly selected from this district. The systematic random sampling procedure was employed to come up with 100 households from both parishes, about having youths who were registered to confirmation classes, and participated in tree planting in different years since the beginning of tree planting programme by the Church.

Parish records of the confirmation youths from their respective households were used to construct a sampling frame. According to the records from the two parishes, the number of youths who had been enrolled in confirmation classes from 2003 to 2015 was 620 and 380 in Nkweseko and Makuna parishes respectively. According to Bailey (1994), regardless of the size of a given population, a representative sample of 30 respondents is a minimum for the study which has to undergo statistical data analysis. Therefore, the total number of households to be involved in

the study was calculated at 10% in each parish whereby a total of 62 and 38 households were respectively, systematically selected from Nkweseko and Makuna parishes. The percentage taken was mainly based on the homogeneous nature of the households involved in the survey.

Primary quantitative data on community perception were captured through a questionnaire survey for the selected, 100 households. A Likert scale with various statements capturing five dimensions response (Strongly Disagree (SD), Disagree (D), neutral (N), Agree (A), and Strongly Agree (SA) responses.) were constructed covering various elements of the program. The qualitative data were captured through Focus Group Discussion (FGDs) and key informant interviews (KIIS) that were conducted in each parish using a checklist of questions. The FGDs involved congregational representatives with different experiences and positions in their given parishes, whereas key informants were singled out from among key people of different positions and experiences in the diocesan, district, and parish levels. The KIIs involved three individuals per parish, while the FGDs involved six to eight members per meeting. Given the nature of information needed the study collected data from the household's heads. The heads were the once who made decisions and offer permission to their children on where to plant trees. In some cases where both husband and wife were present and wanted to participate the freedom was granted for them to agree on whom they want his/her information to be recorded.

Qualitative data from FGDs and KIIs were analysed using content analysis while quantitative data from the structured questionnaire were analysed descriptive, whereby the index score was used. The scores from the Likert scale were summed up then descriptive analysis was employed. To establish levels of community perceptions total scores for all twenty statements were computed:

$$\text{Sum } (\Sigma) = X_1 + X_2 + X_3 + X_4 + X_5 + \dots + X_{20}$$

Given the number of statements and the levels of the scale, the maximum score was 100 while the minimum score was 20. To establish the level of perception, the respondents who scored between 61 and 100 were considered to have positive perceptions and those who scored between 20 to 59 were considered to have a negative perception. The respondents who scored just 60 were considered to be neutral.

4.0 Findings and Discussion

4.1 Socio-Demographic Characteristics of the Respondents

The average age of the respondents was 46 years whereas 31 % were between 25 and 40 years, while those aged between 41 and 50 were 46 %. The rest 23 % of the respondents were above 50 years of age (Table 1). Since the study covered the period between 2003 and 2015, the findings on age groups reflect the parents/guardian who had children enrolled in confirmation class within those years. Age is also an important aspect of natural resource management because different age group has a unique role in natural resource management. For example, old people possess experiential knowledge with regards to tree species suitable for their respective areas, for example, in the FGD one elderly man explained how he was experienced with the tree species



which suit the catchment areas and those which are to be planted on the entire land saying,

“During my youth age, I used to stay with my grandfather who owned this plot which includes the source of that flowing stream. He strongly warned me against cutting the trees around that source and instead he showed me tree species which favour the source as well as other species which are suitable for the entire farm to provide shed and food for our domestic animals”.

They are acquainted with planting season and tree characteristics and uses as well. Concerning this study, all groups were essentially important in understanding the phenomena from different perspectives. The findings revealed that 56% of respondents were male and 44% were female (Table 1). The high percentage of men participating in the study can be attributed to two facts. First, the data were collected from the household's heads. Second, the study topic led men to feel to be more appropriate for information provision. The high participation by men than women in environmental related studies is also supported by Abdul-Wahab and Abdo, (2010) arguing males to show up a higher level of knowledge about environmental issues than females. and active participation in environmental conservation issues.

Table 1: Demographic characteristics of the respondents

Categories	Frequency	Percent
Age		
25-40	31	31.0
41-50	46	46.0
>50	23	23.0
Sex		
Male	56	56.0
Female	44	44.0
Education level		
Primary	34	34.0
Secondary	32	32.0
College	13	13.0
University	21	21.0
Marital Status		
Single	1	1.0
Married	92	92.0
Widower/widow	6	6.0
Divorced/separated	1	1.0
Household size		
Mean		5
Mode		5

About 34% of the interviewed respondents completed primary school and 32% had secondary education, while the rest had college and university education (Table 1). It is as well assumed that more educated people are more knowledgeable and concerned about the environment than less educated (Abdul-Wahab and Abdo, 2010). Findings further revealed that the average household size in the survey was five people per household (Table 1). The minimum number of household members implies having people take care of trees even after the graduation of the youth from confirmation classes.

Among all respondents, the married couples were 92% (Table 2.1). The high percentage of the married couples over the entire groups is of great advantage to the tree planting program at household level in the sense that, their family set up most likely makes it possible to plan, decide and act together hence a greater possibility of success in any given ventures pertaining collective responsibility community

Perception on Environmental Conservation Approach Adopted by the Church.

The findings revealed that 97% of the respondents concur with the statement that the tree planting program is suitable to the households; they see it as one of their daily household responsibilities (Table 2). According to the FGD participants in Makuna Parish showed that, from the economic point of view, the programme is perceived as good as it benefits the households and community at large through tree products such as firewood, timber, building poles and sticks, fruits, animal fodder, medicine, and honey through making wooden beehives or through natural beehives found in trees. During an FGD session, the participants supported the comment given one of them who said,

“We are very much thankful to Church authorities as we can see a lot of benefits coming to us through this program, most of our areas were dry but now we can see the green color of the trees all around us, and the dusty wind which used to disturb us in our households is no stronger as the planted trees have already started to break it down.”

On the other hand, live fences were regarded as important by the community as they protect huts and houses from strong winds and as well they protect field crops from livestock and theft (Kajembe *et al.*, 2004; (Maroyi, 2009). Another participant in the FGD witnessed that,

“Young men and women get employment opportunities by engaging themselves in tree nurseries. They plant and sell tree seedlings to the families of students who are enrolled in confirmation classes especially at the beginning of the year which is the time that confirmation classes begin all over the diocese,”

This is a good indicator of the community awareness on the importance of tree planting which will increase their efforts in participating in the program with the mind-set that despite environmental conservation, it has something to do with their wellbeing differently.

Table 2. Descriptive results on community perception on environmental conservation approach adopted by the Church

S/N	Statement	D	%	N	%	A	%
1	The Church's environmental conservation approach is sustainable	1	1	4	4	95	95
2	Management of the trees does not interfere with the family schedule of activities	37	37	2	2	61	61
3	The environmental conservation through tree planting is suitable to the households	2	2	1	1	97	97
4	The Church's tree planting program is not sustainable	91	91	3	3	6	6
5	Management of the trees interferes with the family schedule of activities since children are not fully available	84	84	2	2	14	14
6	Youths need to be involved in the programme regardless of their skills and knowledge on environmental conservation	6	6	1	1	93	93
7	The environmental conservation approach used by the Church is not suitable to the households	96	96	1	1	3	3
8	Children are being burdened with the task of planting and caring for trees while they are not decision makers	96	96	3	3	1	1
9	Involvement of the children attending confirmation class suffice the tree planting programme	77	77	4	4	19	19
10	This program is still practical regardless of land scarcity	6	6	6	6	88	88
11	The program has nothing to do with environmental behaviour among youths	11	11	8	8	81	81
12	It is not enough to involve only children attending confirmation class in the programme	14	14	1	1	85	85
13	The Church could separate environmental issues from religious matters	84	84	3	3	13	13
14	Regardless of their ability to make decisions, children should be involved in planting and caring for trees	10	10	3	3	87	87
15	Children find it interesting to implement tree planting programme	1	1	12	12	87	87
16	The tree planting program will enhance environmental behaviour among youths	4	4	4	4	92	92
17	Tree planting requires knowledge and skills which children do not have	39	39	2	2	59	59
18	Environmental issues are also part and parcel of religious matters	3	3	3	3	94	94
19	The intervention by the Church on the environment is impractical to land scarcity areas	76	76	11	11	13	13
20	The children are not willing to implement the programme	92	92	3	3	5	5



It was reported by KI that; the ELCT ND's environmental conservation approach has been viewed as one of the ways through which the household environment is enriched. Trees that have been planted in the household land especially in homesteads have been reported to have brought about a very big change in the household environment. Trees which were planted at the beginning of this tree planting campaign run by the church are now big enough and they announce new life on the land.

Results indicated that 95% of the respondents perceived the programme as being sustainable towards environmental conservation (Table 2). Through FGD the participants supported the idea that the programme is in line with the world plan against global warming where Church has joined these efforts to help in changing the destroyed environmental situation. One participant pointed out that,

"As we hear and see through various media, we support what the Church has come up with concerning our environment, the trees we are planting this time will help in changing the situation in our environment in the coming days."

It is well preventing further destruction in the present and future generations. It is also perceived as the strategy of conserving what has not been destroyed as well as restoring what has been destroyed.

About 93% of the respondents agree on the fact that youths need to be involved in the program regardless of their ability to make decisions on the planted trees (Table 2). This shows a positive mindset to the programme because the youths are the targeted group that acts as the central players in the programme, as they are the ones who play the role of receiving, planting, and caring for the trees. The findings further revealed that the participation of youths in the programme was encouraged, as one key informant, an Evangelist who is a long time parish servant pointed out that;

"It is our responsibility to teach the children to understand God's creation that trees are blessings and they should be groomed to understand that, wherever there are trees there are blessings and where there are no trees there are no blessings. It will as well help the young generation to become role models of environmental conservation wherever they will go."

This implies that there is therefore a need to encourage and equip the young generation with important tools so that they can carry out the responsibility of caring for the environment in this generation and extend it to future generations.

Findings further revealed that 94% of the respondents showed a positive response to environmental issues being part of religious matters, (Table 2). This indicates that majority of the people know how their faith is linked to nature. It might be a result of the acquired knowledge through teachings and sermons that they have had received from the Church since childhood, as well as the sense of awareness through teachings that came along with the programme. According to the findings on the success of this programme, linking the environment with faith makes people

feel passion for the trees to the extent of replacing the seedling at their own expense once they die. One key informant, a parish pastor pointed out through a biblical paraphrased that,

"Our teachings about this programme are deeply rooted on the word of God from the Holy Bible in the book of Genesis 2:15 which reminds all of us that we have been put in the environment to work on it, but we should always remember to keep it, that means taking care of it by any means."

Findings showed that 92% of the respondents accepted that the programme plays an important role in imparting environmental conservation awareness among the youths who are involved (Table 2). Some viewed this approach as an important tool that provides environmental education to the children and the community at large. This programme will prepare them to become responsible adults in caring for the environment. It was pointed out through a key informant that;

"It is a very good plan as it gives a permanent memory to those who were involved and they can share it to the next generations as long as the trees that they have planted stand there as living memorable signs."

The pride that one feels after seeing that his or her trees have successfully grown and they are still there, will no wonder instigate others to desire to reach the same goal so that they can one day in the future share the same success stories to others, hence more efforts in tree planting and management. The programme builds up interest on the environmental issues among youths, for example, the act of voluntary caring for the trees as their property as it was pointed out by one participant during the FGD saying that:

"Soon after school in the evening, my son who by then was a first year confirmation student would take his bucket straight to the field to attend his trees, and time to time we would hear him talking about them. It is an approach that arises and builds interest in environmental issues in the sense that it creates a sense of voluntary participation in caring for nature. It calls for the feeling of collective responsibility among community members."

Despite positive perception registered by most respondents, there had been the respondents who showed up some noted negative perception on some issues as addressed in table 3. Thirty-seven percent of the participants disagreed on the statement that the management of the trees does not interfere with the household schedule of activities, and 59% of the respondents agreed on the statement that tree planting requires knowledge and skills which children do not have. The perception that tree planting interferes with the household's schedule might have been consequences of migration of the youths to other regions or districts far from home. It was reported by one of the parents in the FGD that in some cases some of the youths transferred from their parishes of origin after receiving and planting a tree, leaving the responsibility under few and sometimes old household members. The latter perception could be linked with the comment from the key informant, a parish worker who reported that;



“Some parents do not trust that their children can undertake the responsibility of tree planting and their management, so they take over from the very planting stage, but, the youths are very capable; we equip them with both theory and practical knowledge on how to do it”.

This shows the importance and the role played by the Church to prepare the youths so that they do not just receive the tree seedlings and plant but they as well have the preliminary knowledge about their management. It as well helps them to feel a sense of responsibility in that sense.

Generally, the findings revealed that the overall perception was positive since 85.75% of the respondents were positive to the tree planting programme run by the Church (Fig.1). Environmental education, role modelling through pilot tree planting in Church owned areas as well as a well-defined institutional chain of authority, responsibility, and giving of feedback in the Church organization has most likely contributed to the community perception on tree planting programme. Nevertheless, since the programme is an ongoing process and behaviour building is not an overnight issue, then it can be perceived that with time, the perception rate in case of agreeing to the programme is likely to increase especially after receiving education as well as seeing the outcomes of the programme. This is backed up by the fact that the religious institutions work according to their core teachings, beliefs and practices (ARC, 2011). When the community or cohort leaders make certain behaviours a priority, others follow (Diani, 2003; McAdam and Diani, 2003). People also become and stay involved because they want to belong and maintain their relationships with others (Aminzade and Perry, 2001).

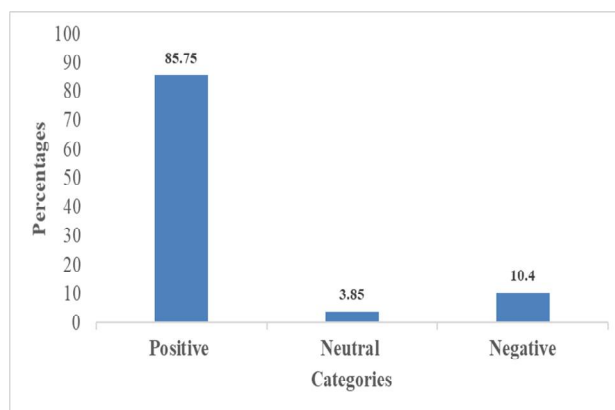


Figure 1: Overall community perceptions of the tree planting programme

Findings generally show a positive perception of the tree planting programme adopted by the Church. The majority of the community members see the programme as part of their household responsibilities and a good approach through which nature can regain its lost form and provide to them what had been lost. This is in line with the theory of self-determination of conservation behaviour, as it points out that people may perform behaviour for their own sake, and again they can perform behaviour to gain positive results while avoiding the negative ones.

5. Conclusion and Recommendation

It can be learned that, linking environmental issues with faith through some implemented mechanisms had enhanced compliance, commitment, participation, and performance in the tree planting programme. The intervention by the Church, the ND of the ELCT in particular, has enhanced the sense of awareness and building up the environmental behaviour among the community members through the tree planting programme. The positive community perception on the tree planting programme by majority confirmed.

The study recommends that religious organizations have to be given a central role in fostering environmental conservation behaviour change to ensure the compliance of youths, other groups, and the community at large. Given the positive perception registered by community members on the approach adopted by the church, the study recommends that the ELCT ND, should extend the model through the current and even other new implemented mechanisms in the future, and think about upscaling the approach to other areas concerning environmental conservation initiatives. It is also recommended other faith based institutions to adopt the approach and join hand the environmental conservation initiatives in the places of services.

References

- Abdul-Wahab, S.A., Abdo, J., (2010). The effects of demographic factors on the environmental awareness of Omani citizens. Hum. Ecol. Risk Assess. Int. J. 16, 380–401.
- Alliance of Religions and Conservation (ARC)- News and Features - UN/ARC Seven Year Plan for Generational Change [WWW Document], n.d. URL <http://www.arcworld.org/news.asp?pageID=249> (accessed 08.22.2016).
- Aminzade, R., Perry, E.J., (2001). The sacred, religious, and secular in contentious politics: Blurring boundaries. Silence Voice Study Contentious Polit. 155–78.
- Awoyemi, S.M., Gambrill, A., Ormsby, A., Vyas, D., (2012). Global efforts to bridge religion and conservation: are they really working? in: Topics in Conservation Biology. InTech.
- Bailey, K.D. (1994). *Methods of Social Research*, (Fourth Edition). The Free Press, New York. 587pp.
- Deci, E., Ryan, R.M., (1985) Intrinsic motivation and self-determination in human behavior. Springer Science & Business Media.
- Diani, M., (2003). Leaders or brokers? Positions and influence in social movement networks. Soc. Mov. Netw. Relational Approaches Collect. Action 105–122.
- Gambrill, A., (2011). From practice to policy to practice: connecting faith and conservation in Africa. Wash. DC Int. Resour. Group USAID Bur. Afr.
- Higgins-Zogib, L., Dudley, N., Mallarach, J.-M., Mansourian, S., (2010). Beyond belief: linking faiths and protected areas to support biodiversity conservation. Argum. Prot. Areas Mult. Benefits Conserv. Use Ed. Sue Stolton Nigel Dudley Lond. Earthscan 145–158.
- Kajembe, G. C., Nyingili, R. B., Msuya, J., Nduwamunga, J. and Katani, J. Z. (2004). Non-wood forest products and their contribution to household food security in Mbozi District, Tanzania. In: Agricultural Technology



- Development through Participatory Research. Proceedings of the 3rd *Collaborative Research Workshop held in Morogoro*, 24 – 26 May 2004, Morogoro, Tanzania. pp. 91 – 105
- Maroyi, A., (2009). Traditional homegardens and rural livelihoods in Nhema, Zimbabwe: a sustainable agroforestry system. *Int. J. Sustain. Dev. World Ecol.* 16, 1–8.
- McAdam, D and Diani, M (2003). Social movements and Networks. *Relational Approaches Collect. Action.*
- Mcleod, E. and Palmer, M., (2015). Why conservation needs religion. *Coastal Management*, 43(3), pp.238-252. <https://doi.org/10.1080/08920753.2015.1030297>
- Ramirez, S., Dwivedi, P., Bailis, R., Ghilardi, A., (2012). Perceptions of stakeholders about nontraditional cookstoves in Honduras. *Environ. Res. Lett.* 7, 044036. <https://doi.org/10.1088/1748-9326/7/4/044036>
- Rolston III, H., (2010). Saving Creation: Faith Shaping Environmental Policy. *Harv Pol Rev* 4, 121.
- Salinas T, (2015). Nature Never Forgives: 7 of Pope Francis's Greenest Quotes. *National Geographic Society News*. URL <https://news.nationalgeographic.com/2015/09/1201509-20-pope-francis-environment-climate-quotes/> (accessed 2.15.19).
- URT, (1998). Kilimanjaro Region Socio-economic Profile. The Planning Commission, Dar es Salaam and Regional Commissioner's Office, Kilimanjaro.1-2pp
- World Bank (2006). Faiths and the environment World Bank support 2000 – 2005. [<http://tinyurl.com/ylp3bn>] site visited on 15/7/2016