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Women in Conservation: A Study of Effective Community-Based Conservation and the Empowerment of Women in Tanzania

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Women in Conservation: A Study of Effective Community-Based Conservation and the Empowerment of Women in Tanzania

*A multi-city case study of communities surrounding Lake Manyara
National Park, Ngorongoro Conservation Area, and Mount Kilimanjaro
National Park*

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Keywords: *Environmental Conservation, Gender Studies, & Community-Based Conservation*

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Abstract

The subject of this study is women involved in Community-Based Conservation (CBC) from areas surrounding Lake Manyara National Park, Ngorongoro Conservation Area, and Mount Kilimanjaro National Park. CBC is a participatory process between people and organizations who have responsibilities affecting conservation. Communities surrounding protected conservation areas tend to experience high levels of poverty and marginalization due to exclusive conservation policies and the lack of co-management principles. Although tourism revenue is abundant in these locations, the benefits rarely impact local community members that disproportionately experience the effects of conservation. This is especially true for women who hold the responsibilities of collecting firewood, cooking, tending to livestock, farming, and sending their children to school. Effective CBC requires integrating conservation with the socio-economic requirements of local people while implementing policies that promote collective responsibility and conservation education. Is there a relationship between effective CBC and the feeling of empowerment within women involved in the conservation process? This study found a positive correlation between the involvement of CBC and the feeling of empowerment in female participants through economic incentives, social power, and educational opportunities.

Acronyms and Abbreviations

AMSO	Alailelai Maasai Sustainability Organization
CBC	Community-Based Conservation
CBO	Community-Based Organization
CBNRM	Community-Based Natural Resource Management
CCS	Community Conservation Services
HWC	Human Wildlife Conflict
KINAP	Kilimanjaro National Park
KINAPA	Kilimanjaro National Park Authority
LMNP	Lake Manyara National Park
LMNPA	Lake Manyara National Park Authority
NCA	Ngorongoro Conservation Area
NCAA	Ngorongoro Conservation Area Authority
NGO	Non Governmental Organization
PAWM	Planning and Assessment for Wildlife Management
PWC	Pastoralist Women's Council
TANAPA	Tanzania National Parks Authority

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1. Introduction

In Tanzania, “women are responsible for everything: cooking, farming, sending their children to school, and tending to the livestock while the man holds all of the power in the household.”¹ Tanzanian society continues to be patriarchal despite the continuous efforts to mitigate challenges presented by traditional gender roles within the household. Women’s connection to conservation imposes a significant challenge to their livelihoods and safety within their homes, creating a correlation between women’s representation in conservation and the effectiveness of environmental protection. The implementation of conservation policies has created a great disconnect between protected area authorities and local communities, presenting a need for public welfare and co-management approaches.

Community-Based Conservation (CBC) has allowed for the involvement of community members in the conservation process and the mitigation of ailments faced by conservation policies. These projects aim to incorporate governmental action, NGO involvement, and local leadership in improving the lives of communities marginalized by conservation, however, the implementation of these projects is rarely prioritized. When effective, CBC has been shown to promote community unity and collective responsibility in regards to conservation while providing economic and educational incentives to sustainable practices. Women are amongst the most involved yet marginalized by conservation and implemented CBC has provided them with an opportunity for empowerment within their families and communities. This study seeks to understand the challenges and benefits faced by conservation, the gender disparities found through the effects of conservation, and the correlation between effective CBC and the feeling of empowerment within women in communities surrounding Lake Manyara National Park, Ngorongoro Conservation Area, and Mount Kilimanjaro National Park.

1.1 Defining Community-Based Conservation

Tanzania is home to an abundance of wildlife species and natural resources which have been protected through vast Conservation Areas and National Parks. Tanzania has sought to protect these wildlife resources and has become successful in doing so through the establishment of National Parks and Conservation Areas. The Tanganyika National Parks Ordinance CAP of 1959 established the institution known as Tanzania National Parks Authority (TANAPA) and the

¹ Interview with NCA Resident, April, 2019

Wildlife Conservation Act of 1974 allowed the government to establish and govern protected areas.² These National Parks cover about 26% of Tanzania's surface area, 15% of the total surface area is designated to wildlife in areas where human settlement is prohibited, and 10% of the surface area is allotted for humans and wildlife to exist together in protected areas.³

Conservation policies have been criticized due to the lack of consideration for the interests of local community members affected by Conservation Areas. When establishing a National Park or Conservation Area, the government allocates a substantial portion of land which minimizes resources that local communities relied on for survival. Traditional and cultural practices have been halted because they were illegal or they no longer had the necessary resources. Although the government promised economic compensation for their inconveniences, the benefits rarely assisted the individuals and ultimately excluded local communities.

In 1990, the Planning and Assessment for Wildlife Management (PAWM) was established in order to tackle the issues present in Tanzania's wildlife sector. Their objectives were to initiate a CBC policy that encompasses local interests and human settlements. The result of this project was the "Policy for Wildlife Conservation," which enabled a policy for Community-Based Conservation (CBC).⁴ CBC aims to benefit local community members in areas surrounding National Parks and Conservation Areas while attaining conservation goals and initiatives. The success of CBC depends on cooperation and coordination between stakeholders and the consideration of experiences of these stakeholders who have control over the implementation of the policy.⁵ Overall, CBC aims to provide benefits for conservation and economic development while influencing local people's livelihoods.

Under the jurisdiction of TANAPA, Community Conservation Services (CCS) provides community outreach programs focused on involving local communities in the conservation process. The objectives of this program are to improve the relationships between National Parks and local communities while ensuring that the interests of TANAPA are met with consideration

² User, S. Tanzania National Parks (TANAPA). Retrieved March 28, 2019, from <https://tanzaniaembassy.fr/tourism/tanzania-national-parks>

³ Leader-Williams, N., Kayera, J. A., Overton, G. L., & International Union for Conservation of Nature Natural Resources. Species Survival Commission. (1996). Community-based conservation in Tanzania : Proceedings of a workshop held in February 1994 (Occasional papers of the IUCN Species Survival Commission ; no. 15). Gland, Switzerland: IUCN, The World Conservation Union.

⁴ Walsh, M. T. (n.d.). "The Development of Community Wildlife Management in Tanzania." Tanzanian Gateway, Dec. Accessed March 27, 2019.

⁵ Ibid: 1

of community welfare. Additionally, CCS incorporates conservation education programs into school curriculums and promotes sustainable development through accessible resources. TANAPA collaborates with district, ward, and village level officials and initiates village assemblies to introduce the new project into the community.⁶ Benefit sharing is an essential framework for CCS which allows for revenue and overall benefits from conservation to trickle down considerably to all stakeholders.

Separately, CBC is a specific practice found in and around Wildlife Management Areas (WMAs) and game reserves in Tanzania. CCS is an exclusive form of CBC for Tanzanian National Parks. For the purpose of this study, all forms of community conservation, including CCS, will be referred to CBC as a broad term for the involvement of communities in the conservation process.

1.2 Context of Conservation in Mto wa Mbu

Mto wa Mbu, Tanzania is situated at the gate of Lake Manyara National Park and rests at the foot of the Rift Valley. It sits between the Arusha Region and the Ngorongoro Conservation Area Authority (NCAA) and the Serengeti National Park which allows for Mto wa Mbu to be a popular tourist destination. It is a part of the greater administrative ward in the Monduli district of the Arusha Region of Tanzania and is home to 11, 405 people and 120 ethnic groups.⁷ Due to the close proximity to a National Park, Mto wa Mbu has been involved in a TANAPA outreach program which aims to improve the socio-economic statuses of local community members. This program was established in 1992 and the objective was to obtain community benefits from revenue accrued from Lake Manyara National Park. The establishment of the National Park stirred reluctance from local communities to conservation because the government declared the protected area without the local people's knowledge and they were not witnessing the direct benefits from the National Park. Without the involvement of local community members, there is a potential for diminishing natural resources as a result of daily activities. Therefore, CCS has attempted to include local communities in conservation initiatives. These services include the

⁶ Community Based Natural Resource Forum. (2016). Retrieved March 29, 2019, from <https://www.tnrf.org/en/cbnrm>

⁷ Government of Tanzania. (2012). "2012 Population and Housing Census."

construction of schools, health centers, roads, and water projects, fully funded by revenue produced from tourism in Lake Manyara National Park.⁸

Communities in the Manyara Region interact with an ecosystem of global biodiversity significance.⁹ The wildlife in Lake Manyara National Park has an increasingly high economic value which boosts the revenue accrued from these areas. The CBC interventions in this area aim to incentivize an increase in sustainable wildlife and livestock production and reduce agricultural practices that will inhibit conservation processes.¹⁰ Due to the large-scale seasonal migration of large grazing wildlife, the Tarangire-Manyara ecosystem largely depends on maintaining the habitats on shared land. Maasai communities have been perceived as a threat to conservation and land rights because of their heavy reliance on pastoralism. CBC in this area focuses on decreasing poverty levels in pastoral communities, increasing wildlife populations, and decreasing land use change by pastoralists to agriculture.¹¹

Although these proposed projects are directly benefiting local community members, there is contradictory information on the exact improvements to the livelihoods of the surrounding communities. Some scholars have highlighted the positive contributions of CCS on the livelihoods of local community members, however, other scholars have contradicted this precedent by showing the continuous socio-economic marginalization of community members living near the corridor of the National Park.¹² Thus, this study examined the effectiveness of CCS in communities surrounding Lake Manyara National Park and whether involvement in these programs has empowered the women who participate.

1.3 Context of Conservation in Karatu

The Karatu District is divided into thirteen wards and bordered by the Ngorongoro, Monduli, and Manyara Regions which include the NCAA and Lake Manyara National Park. Approximately 178,000 people live in the Karatu District and the wards consist mostly of farms

⁸ Interview with the Outreach Warden of Lake Manyara National Park, April 2019

⁹ Sachedina, H. T. (2008). "Wildlife is Our Oil: Conservation, Livelihoods and NGOs in the Tarangire Ecosystem, Tanzania." Retrieved March 27, 2019, from http://african-environments.ouce.ox.ac.uk/pdf/sachedina_dphil.pdf

¹⁰ Ibid

¹¹ Sachedina, H. (2006). Conservation, land rights and livelihoods in the Tarangire ecosystem of Tanzania. 2006. Oxford, UK: University of Oxford and Nairobi, Kenya: ILRI.

¹² Aplonary, D. (2016). "The Role of Lake Manyara National Park Outreach Programmes on Socio-Economies of Local Communities in the Monduli District, Tanzania." Sokoine University of Agriculture Institutional Repository. Retrieved March 28, 2019

and villages.¹³ The wards surrounding the NCA are held accountable for following environmental conservation standards such as limitations on logging and agriculture. The NCA is 8,292 km² and located in the Ngorongoro District of the Arusha Region of Tanzania.¹⁴ The NCA is home to 14 villages with a total of about 42,00 Maasai people. In 1959, the Ngorongoro Conservation Area Ordinance was established and became a trial for a multiple land use area. This installation moved the Maasai living in the Serengeti National Park into the NCA and promised compensation in the form of water sources and veterinary centers. These assurances were never fully honored and the NCA further eradicated Maasai from the Ngorongoro Crater into peripheral areas.¹⁵ The NCA differs from National Parks because it allows for both conservation and human land use under the same establishment.

The NCA focuses on conserving wildlife and preserving archaeological sites from the origination of human evolution while sharing its home with resident Maasai pastoralists.¹⁶ The NCA aims to conserve wildlife, sustain human livelihoods, maintain the Maasai culture, and gain revenue from ecotourism. CBC in this area has attempted to preserve communities that are facing human exploitation. In the book, *Serengeti IV: Sustaining Biodiversity in a Coupled Human-Natural System*, Katie Hampson wrote, "...there is a need to protect rural livelihoods, reduce their vulnerability, counterbalance losses from wildlife with benefits, and foster community based conservation with tangible profits to communities unlike existing models of community conservation, otherwise antagonism toward conservation objectives are likely to increase."¹⁷ Furthermore, the transmission of diseases between wildlife, humans, and livestock is an additional threat to conservation and to the health of local communities. A model of CBC has been implemented to increase conservation, improve public health policies, and further develop ecosystem help. This system, in return, will improve relationships between National Parks and local communities.¹⁸

¹³ Government of Tanzania. (2002). "2002 Population and Housing General Report: Arusha: Karatu."

¹⁴ The Case of Ngorongoro Conservation Area, Ngorongoro District, Arusha Region Tanzania. (2000). Retrieved March 28, 2019, from https://rmportal.net/library/content/tools/biodiversity-support-program/copy_of_cbnfm/USAID-BDB-cd-2-data/pnack611-tanz4.pdf/view

¹⁵ Ibid

¹⁶ Sinclair, A., Metzge, Kristine L., & Fryxell, John M. (2015). *Serengeti IV : Sustaining biodiversity in a coupled human-natural system*. Chicago: The University of Chicago Press.

¹⁷ Ibid

¹⁸ Ibid

Although the CBC efforts have aimed to involve local community members, the Maasai have been disenfranchised from the NCA which has failed to adopt a co-management and decision-making institution. Community development activities such as the construction of schools have been halted in the name of conservation. Cultural and traditional activities have been compromised which have not only severed community relations, it has been detrimental to the health of community members. For example, the Maasai rely on livestock keeping as a cultural and food security practice and the NCA put heavy restrictions on this practice.¹⁹ Therefore, this study aimed to analyze the current relationship between Maasai women and the conservation process in the NCA.

1.4 Context of Conservation in Moshi

Similar to the Manyara Region and the NCA, the protection of Mount Kilimanjaro National Park has posed socio-economic ailments to communities surrounding the National Park. Mount Kilimanjaro is the highest standing mountain on the African continent and is home to a vast amount of rare and endemic flora and fauna species. The demand for agricultural land and forest products has decreased biodiversity, tree coverage, and has compromised the ecosystem. Mount Kilimanjaro is highly sensitive to climatic events such as drought and floods and has been the victim of land degradation. Activities such as illegal logging, charcoal production, and livestock grazing have created a threat to the glaciers of Mount Kilimanjaro. CBC in this area has focused specifically on balancing conservation and poverty reduction with the long-term involvement of the local people closest to the natural resources. These projects have supported local communities in their own stewardship of natural resources and have linked communities, park management agencies, local authorities, and other stewardship stakeholders in order to support co-management of the natural resources.²⁰

¹⁹ Ibid: 11

²⁰ Rössler, Mechtild (2018). World Heritage for Sustainable Development in Africa. United Nations Educational, Scientific, and Cultural Organization.

1.5 Gender Inequalities in Conservation

As the conflict between Conservation Areas and local communities has increased, the need for a solution has become essential to the success of National Parks and the well-being of community members. Government policies, local and international non-governmental organizations (NGOs), and local officials have taken action in the form of CBC in order to combat the increasing conflicts between humans and wildlife. In local communities, men are typically at the forefront of the CBC projects while women hold traditional roles around the house. Although Tanzania has made notable progress towards gender equality and women's empowerment, equity between the genders has not been established. Through the implementation of CBC in communities surrounding National Parks in Tanzania, women have had the opportunity to gain economic and social empowerment within their village.

In existing literature, women have been found to disproportionately experience the effects of the Human-Wildlife Conflict (HWC). Women and female-headed households tend to experience an increasing HWC burden due to the heightened workloads and physical risk of injury from wildlife. Women also hold the role of guarding fields and crops which puts them at further risk of exposure to insect-borne diseases.²¹ As a result of the uneven distribution of conservation effects, the importance of studying women empowerment in areas surround National Parks increases. Furthermore, there are significant disparities between men and women's power within communities to gain access to resources, control assets, and make decisions. Previous research argues that CBC enhances women's social status within their communities, developing businesses and providing income-generating opportunities. This has resulted in an increase in self-confidence and economic value.²²

Previous literature has established the conventional wisdom of successful CBC and women empowerment, arguing that empowering marginalized communities with property rights has provided significant economic and environmental benefits. In the article, "Community Conservation in Namibia: Empowering the Poor With Property Rights," Karol Boudreaux highlights the effectiveness of the devolution of some property rights to manage and benefit from tourism activities and wildlife from the national government to local communities. This has

²¹ Khumalo, K., & Yung, L. (2015). Women, Human-Wildlife Conflict, and CBNRM: Hidden Impacts and Vulnerabilities in Kwandu Conservancy, Namibia. *Conservation and Society*, 13(3), N/a.

²² Godde, P., Price, Martin F, & Zimmerman, Friedrich M. (2000). *Tourism and development in mountain regions*. Wallingford, Oxon, UK ; New York: CABI Pub.

empowered local community members by strengthening incentives to conserve wildlife and to act entrepreneurially to economically benefit from ecotourism. Furthermore, this study outlines the decentralization of the Namibian government to assist local government institutions in managing land and resources.²³ Namibia has had success in providing land rights to local community members in order to incentivize cooperation with the implementation of CBC projects.

Moreover, the Community Forestry Programme in Nepal has seen successful examples of CBNRM through involved local people's indigenous knowledge to improve decision-making and local control over resources. The program stresses the need to involve women in the planning and decision-making process because their participation empowers the women involved by allowing them to share their knowledge of natural resources and sustainability. In this program, there would not have been a high success rate without women's active participation and they argue that there needs to be a mainstreaming of gender equality within CBC.²⁴

Contributing to the ongoing debate, CBC can produce negative effects on women's health and empowerment within local communities. Unsuccessful CBC can place cause more harm than benefits to communities if the needs of local members are not taken seriously. For example, a study at the Kwandu Conservancy in Namibia found that women experience vulnerability, stressors, and further marginalization from CBC projects that use unsuccessful tactics to promote a positive human and wildlife interaction. The Kwandu Conservancy policy put into place restricted compensation to farmers who were unable to guard their fields which allowed less access to funds that would help them in recovering from the destruction of their property. This policy highly affected women because they typically oversee smaller fields, specifically unmarried women, which created further vulnerability within the community. Furthermore, institutional and political forces interacted with community norms, including women's roles and responsibilities, which disregarded the women's concerns about CBC in their communities.²⁵ This study outlined the poor effects of CBC on women empowerment when the projects are not implemented sustainably or ethically.

²³ Boudreaux, K., & Nelson, F. (2011). COMMUNITY CONSERVATION IN NAMIBIA: EMPOWERING THE POOR WITH PROPERTY RIGHTS. *Economic Affairs*, 31(2), 17-24.

²⁴ Adhikari, J. R. (2001). Community Based Natural Resource Management in Nepal with Reference to Community Forestry: A Gender Perspective. *A Journal of the Environment*, 6(7). Retrieved March 27, 2019, from <http://hdl.handle.net/10919/67269>

²⁵ Ibid: 9

2. Methodology

This study was composed of qualitative research in the form of 79 semi-structured interviews with members of local communities, politicians, and international and domestic non-governmental organizations (NGOs). This study used the snowball sampling method to locate and contact a sample population of interviewees. The main point of contact came from Dr. Alodia Machumu, the translators, the Cultural Tourism Program of Mto wa Mbu, and Ole Sikorei CN Leyan (Arpakwa) who provided contact information for local NGO leaders, government officials, and local community members involved with the conservation process. This study was outlined in the form of semi-structured interviews, found in *Figure. 9* in the Appendix, in order to increase dialogue and allow the participant to fill in information that they viewed as important. Interviews took place with NGO leaders and government officials to cover a broad idea of CBC projects and the impacts they have on women. Mostly women were interviewed in each community to better understand their relationship to conservation, however, it became important to widen the research pool to men to understand the holistic effects of conservation. All participants signed an Informed Consent Form which can be found in *Figure. 8* in the Appendix. The government officials and NGO leaders gave full consent to use their full names in the research but all other identities are anonymous.

The interviewees answered a set of questions about their relationship to conservation, the challenges and benefits of living near a National Park, the conservation efforts they participate in, the different effects that men and women face regarding conservation, and the level of empowerment felt by their involvement in conservation. These questions aimed to highlight whether the interviewee felt empowered by CBC.

This study used the IBM SPSS Statistics Software to find the association between nominal variables of involvement in CBC and feeling of empowerment in women. This study analyzed the data through a qualitative synthesis of interviews and a Chi-Square Test to analyze the significance of the correlation between the involvement of CBC and women empowerment. This method only analyzed the responses of women regarding feelings of empowerment and did not take into account the answers from men.

This project analyzed the three communities of Mto wa Mbu, Karatu, and Moshi because of their close vicinity to well-known tourist attractions. The town of Mto wa Mbu has a low rate of community involvement in conservation, thus, this project studied the relationship of

community members to conservation when they are not directly involved in a conservation project. This community was selected with the intention of comparing the levels of empowerment in women involved in conservation to those who were not. This project analyzed Karatu and Moshi because they border the two largest tourist attractions in Tanzania, the Ngorongoro Crater and Mount Kilimanjaro National Park. Additionally, they have a consistently high rate of community members involved in conservation and this project sought to receive a holistic perspective of community conservation projects in Tanzania.

The first interview took place with Hargeney Chitukuro, the Assistant Administrative Secretary of the Economic and Production Sector of the Arusha Region. Chitukuro oversees the agriculture, livestock, natural resources, wildlife tourism, forestry, trade, and fishery sector of the Tanzanian government. He manages economic activities and policies surrounding conservation and aims to conserve and protect wildlife while maintaining human activities. In regard to conservation, Chitukuro's objective is to mitigate the Human and Wildlife Conflict in areas surrounding National Parks and Conservation Areas. He works alongside conservation NGOs, local governments, and community members to involve major stakeholders in the conservation process.

The second interview was with Navaya Olendaskoi, a part-time employee of PINGO's Forum which is an NGO that works with victims of conservation. This interview specifically outlined the negative effects of conservation on Indigenous people in Tanzania. PINGO's Forum advocates for marginalized communities by providing political pressure in the form of press conferences and publications. They speak in parliament and litigate when they have attempted all other options of fighting for the justice of victims of conservation.²⁶ On the contrary to other conservation NGOs, PINGO's Forum advocates for the rights of marginalized communities instead of involving them in the conservation process.

The second NGO interview took place in Karatu with Somian Ngaikulu, the Program Advisor and Educational Coordinator for Alailelai Maasai Sustainability Organization (AMSO Tanzania). AMSO is an American sponsored non-profit that empowers women through conservation education and microloans for small businesses.²⁷ AMSO provides women, specifically widows, with goats to empower them economically. Furthermore, AMSO works

²⁶ Interview with Navaya Olendaskoi (PINGO's Forum), April 2019

²⁷ Interview with Somian Ngaikulu (AMSO Tanzania), April 2019

alongside local government leaders and international donors to give loans to those in need and implement projects that involve local community members in the conservation process.

An additional interview occurred with Mary Lemunga, the Coordinator for the Pastoralist Women's Council Community-Based Organization (CBO) in Karatu. The CBO is funded by the NCAA and the Ngorongoro Pastoral Council and works with women's rights, education, and health. The CBO works specifically with Maasai women in the NCA and promotes women's rights within a culture that denies women basic human rights.²⁸ Alongside women's rights and education, the CBO also trains women in conservation practices such as minimizing the use of firewood and empowers women economically through micro-loans.²⁹

Mto wa Mbu Methodology

In the first portion of the study, 20 community members were interviewed in villages surrounding Mto wa Mbu and Lake Manyara National Park. Interviews were conducted with 15 women and 5 men who lived on the corridors of Lake Manyara National Park, interacting with conservation and wildlife in their everyday lives. The data collection for this portion of the study transpired for a duration of 6 days. 2 of the female interviewees worked with the Cultural Tourism Program of Mto wa Mbu and the remaining interviewees were selected by the translator through visiting villages and interviewing women who lived near the border of Lake Manyara National Park. The participants were not specifically involved in CBC, however, they interacted with conservation on a daily basis due to the location of their home and community.

The interviews took place either inside or outside women's homes while they continued to conduct their daily activities such as cooking or farming. In conjunction with interviews of community members, an interview with the Outreach Warden of Lake Manyara National Park occurred. This location was specifically chosen to determine the effects of conservation on community members that were not involved in a distinct CBC program.

²⁸ Interview with Mary Lemunga (PWC CBO), April 2019

²⁹ Ibid

Karatu Methodology

The second portion of the study consisted of 30 interviews with community members in areas surrounding the Ngorongoro Conservation Area (NCA). 20 women and 10 men were interviewed, all of which were involved in CBC either inside or outside the NCA. The interviewees were mostly farmers or livestock keepers between the ages of 30 and 72. In order to find a variety of participants, three translators offered assistance from the Karatu and Ngorongoro area. The first translator lived in the NCA and located 6 Maasai women that were involved in CBC inside the NCA and were willing to travel to Karatu to participate in the study. The second translator directed the study to 8 farmers involved in CBC directly outside of the NCA and 8 Maasai women living in a cultural bomb adjacent to the NCA gate. The last translator set up interviews with women and men involved in the Outreach (Ujirani Mwima) Program created by the Ngorongoro Conservation Area Authority (NCAA) as a support system for neighboring villages involved in conservation. Interviews took place with village members that received cattle donations and education from the Outreach Program.

Moshi Methodology

In the third portion of the study, interviews with 20 women and 10 men occurred in the Mweka Village adjacent to Mount Kilimanjaro National Park. The participants were located through the translator and were all involved in a mushroom farming project for poverty reduction in Mweka Village, Moshi. The interviewees were employed farmers between the ages of 21 and 64. This project is funded by Mount Kilimanjaro National Park and provides community members with training on mushroom production. The high poverty rate in this village has contributed to environmental destruction in the form of illegal tree cutting for firewood and profit.³⁰ This project aims to support the mushroom growers to obtain reliable income due to the short harvesting time. KINAPA promotes CCS through the mushroom project by educating community members on conservation and the main human causes of deforestation and pollution. This project analyzed this community because of the close vicinity to Kilimanjaro National Park and the high rate of community involvement in the conservation process.

³⁰ Interview with Mweka Village community member

2.1 Biases and Limitations

This study was limited by various factors which implicate the need for further study. The largest restraint was time, as this study took place over a three and a half week period. With more time, this study has the potential to holistically synthesize CBC in these regions if more people were able to be interviewed. The lack of personal connection and trust had the potential to create a bias within the results if the participants did not feel comfortable sharing their honest experiences. A language barrier imposed a significant limitation because I was unable to understand how my translator was phrasing the questions or the responses. My translators had different translating styles and they all interacted with the interviewees differently which brings a set of biases. Three of five translators were men which might have created a bias within the responses of women because there could have been a power dynamic present. Some data was surely misconstrued because of the lack of direct translating.

Another bias was the variation in methodology between locations. I found interviewees in each location through completely different entities and they all had varying involvement in conservation. This created difficulties when making comparisons correctly because each participant was not equally involved in CBC. This variation created bias because the translators were able to locate people that they knew and had different professions and relationships to conservation as a whole. This limitation created a bias in the sample population because the participants only represent a minuscule portion of the greater population.

An overall limitation was the reliance on other people for resources and knowledge. This project was formed quickly due to the lack of response from various NGOs and outside organizations that had the potential to assist me with my study. Additionally, it was difficult to locate people to study without the assistance of local Tanzanians which occasionally took a long time to organize due to the relaxed lifestyle. With swift responses, I would have been able to minimize the time limitation by interviewing more people in a smaller time frame.

2.2 Ethical Implications

This study posed very few ethical issues during the interview period. One ethical issue was the translation error of the Informed Consent Form between my written form and the spoken version in Kiswahili. My translators gave the interviewees an overview of the Informed Consent Form but it was not read word-for-word which could create an ethical issue when understanding

their rights as a participant. Some translators would only say a few words about the Informed Consent Form which poses a large ethical dilemma within their ability to feel comfortable as an interviewee. These implications were mitigated by long discussions with the translators and expressing the importance of informed consent before beginning interviews.

The mentioning of sensitive topics within interviews also adds an ethical dilemma within this study because participants want to protect themselves legally. A few participants mentioned the anti-poaching movement and emphasized that they do not poach in their community. Their answers could have been biased because of their discomfort discussing the challenges of conservation. I expressed my position as a student aiming to understand conservation as a whole and highlighted again that their identity would remain anonymous. I would also direct the conversation away from the topic of poaching in order to lower ethical issues by the presence of sensitive subjects.

This study required the time and attention of the participants during their daily activities. This often required the halt of farming, cooking, livestock keeping, or watching over children. This creates an ethical dilemma because people are unable to fully continue their work while signing the Informed Consent Form and answering the questions. In order to compensate for time and profit lost, I provided participants with 2,000TSH or a small bag of sugar at the end of this interview. Although this did not fully replenish resources and time lost, it did show my appreciation and respect for their participation.

3. Findings

The women in communities surrounding LMNP, NCA, and KINAP have experienced debilitating challenges from the establishment of protected areas. National Parks and Conservation Areas have displaced community members, increased the HWC, and have posed detriments to the livelihoods and cultural practices of local community members. The central government and conservation NGOs have implemented CBC projects to involve women in the conservation process to receive benefits from revenue generated from tourism. The involvement in CBC projects has allowed women to gain control of financial assets and social capacity within their communities which, in return, has enriched the relationship between protected areas and local communities.

As shown in *Figure 1*. of the Appendix, the involvement of CBC and feelings of empowerment in female participants are positively correlated ($p=0.000$) which is also expressed in the qualitative data below. The next sections outline the results from individual locations and the discussion section analyzes and synthesizes the findings from each study site.

3.1 Mto wa Mbu Results

Conservation Relationship

TANAPA established LMNP in 1992 with an objective to benefit community members from revenue produced by tourism, however, local community members were reluctant to conservation because they did not see the direct benefit from the park.³¹ LMNPA attempted to implement community initiatives and conservation education in the surrounding communities although this strategy was not effectively executed. The majority of community projects have been phased out on account of community disinterest or a lack of funding. Thus, Mto wa Mbu is an example of a community that has been ineffective in productively including local community members in the conservation process.

The participants in this region were between the ages of 44 and 73 and lived along the corridor of LMNP. 3 women owned local businesses, 1 woman and 1 man were employed by LMNP as park rangers, 3 men involved in anti-poaching efforts, 1 man involved in education, and 11 women who owned farms and were not involved in conservation. Community members in villages surrounding LMNP interact with conservation on a consistent basis due to the invasion of wildlife in their home and community. Wildlife, specifically elephants, hippos, baboons, vervet monkeys, and lions, persistently escape LMNP and enter into the farms and grazing areas in surrounding communities. As a result of the conservation laws implemented by LMNPA, community members are prohibited from poaching animals on their property. When these events occur, community members use scare tactics or contact LMNP Park Rangers to remove animals from their property. Furthermore, people interact with conservation through the heavy tourism industry either directly through small businesses or indirectly through LMNP community projects.

³¹ Ibid: 7

Conservation Challenges

Bordering a National Park poses various challenges to livelihoods, families, and property in surrounding communities. These challenges include crop damage as a result of escaped wildlife, the potential threat to the lives of humans and livestock from dangerous animals, lack of compensation for property damage, and the overarching authority of LMNP. The graph below highlights the most discussed challenges of living near LMNP and the challenges posed by gender.

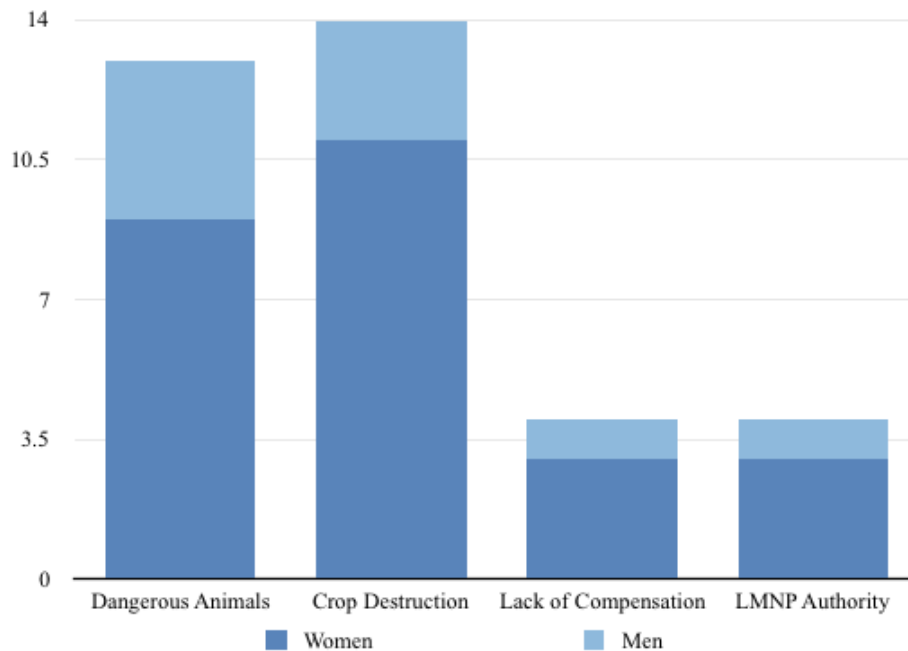


Figure 2. Challenges of Living Near Lake Manyara National Park

The most significant challenge experienced in this area is the HWC attributable to the wildlife that escapes LMNP. Wildlife feed on crops that community members rely on for nourishment and profit which places a detriment on human health and income. Wildlife from LMNP trample crops, eat bananas, and destroy significant farm plots. These losses generate impoverishment and the lack of income to send children to school. Parallel to the HMC, LMNP is home to an abundance of dangerous animals that consistently escape to surrounding areas, producing a threat to human lives. Animals from LMNP have injured and killed local community members with minimal subsidies from the National Park Authorities. LMNP is responsible for animals in the park but does not oversee animals outside the corridors. In the case of death or injury due to an animal attack, community members have the opportunity to address the District

Council to receive subsidies for lost property, settled at 20,000TSH and 1,000,000TSH for human death.³² However, human crops inevitably attract animals and the government struggles to give the token amount for these detriments. These losses continuously drive community members into poverty and grief.

LMNPA has overarching authority over activities surrounding the National Park which often leaves community needs and voices unrecognized. For example, anthrax, a serious infectious disease, spreads from wildlife in LMNP to livestock and humans in surrounding villages. LMNPA has difficulties controlling the movement of animals but prohibits the shooting of animals, therefore, community members suffer from the external outcomes.³³ LMNPA organizes meetings with the village government councils to promote collaboration between the National Park Authorities and local government leaders, yet the central government and LMNPA have the overarching jurisdiction of activities surrounding LMNP.

Conservation Benefits

Despite the posed challenges of living near LMNP, local communities receive benefits, both direct and indirect, from the tourism industry and the attached revenue. Local businesses and tourism companies profit from LMNP by selling products and experiences to international tourists passing through Mto wa Mbu. Some women prepare traditional meals for tourists, sell bananas along the main road, or manage small convenience stores to profit from the tourism industry. Likewise, local community members open safari companies and lodges to become privately involved in the conservation process. Through these self-sufficient forms of revenue, community members are able to send their children to school and support their families. Environmental conservation is deemed as important to community members, specifically women because they are able to retrieve firewood from LMNP for basic human needs such as cooking and building houses. When the trees are preserved and protected, there is an abundance of resources for community members to rely on. The table below shows the distribution of data regarding the main benefits of conservation both direct and indirect.

³² Ibid

³³ Interview with Agricultural Officer, Mto wa Mbu, April, 2019

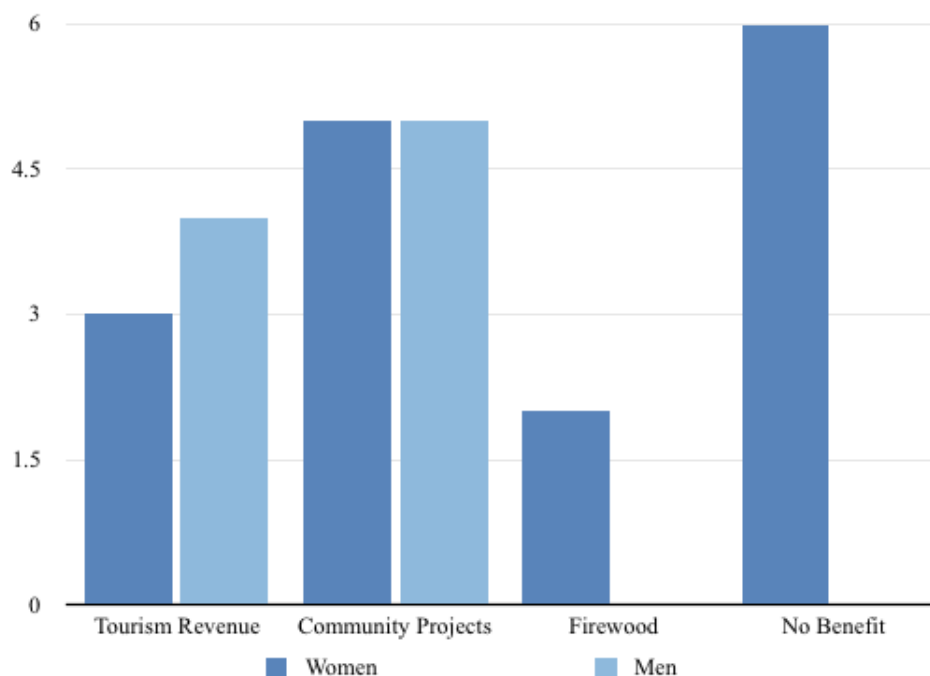


Figure 3. Benefits of Living Near Lake Manyara National Park

Due to the lack of involvement in community-based projects, village members rarely receive direct benefits from living near LMNP. Contrarily, the entire community; obtains indirect benefits from the tourism revenue through the construction of community needs such as schools, hospitals, water systems, and roads. LMNPA collaborates with local leaders to create projects that fulfill community needs supported by tourism revenue. Although these significant benefits affect the community as a whole, village members often overlook these improvements as assistance from LMNP because their livelihood is not directly benefited. As expressed in the graph above, 30% of respondents answered that they receive no benefits from the conservation process which was the most common response amongst the participants. According to the participants, there is no significant benefit from living near LMNP because their lives are not directly improved from conservation.

Gender Disparities in Conservation

Gender disparities in conservation are apparent within Mto wa Mbu attributable to the household responsibilities present. Women oversee household necessities such as tending to the livestock, farming, cooking, and watching the children. Men often travel into town to work and leave the women at home to fend off intruding wildlife which has the potential to harm or kill the

women. Women are presented with the task of growing and harvesting food to provide for their families which puts them at a detriment when animals destroy their property.

14 out of 15 women agreed that women experience the effects of conservation more severely than men because of the higher risk of injury and loss of crops. Contrarily, 4 out of 5 men argued that men and women are equally affected by conservation because they all experience the benefits and losses caused by the conservation process. 13% of the women noted that they felt empowered by the conservation process. The 2 women that felt empowerment by conservation were involved in the Cultural Tourism Program and had a specific role in conservation, whereas the remaining women were not involved in conservation and did not experience any life improvements as a result of conservation.

3.2 Karatu Results

Conservation Relationship

As the NCA increasingly attracts tourists, the NCAA imposes more restrictions and regulations on land use and human activities in and around the Conservation Area. The Maasai residents of the NCA interact with conservation in all aspects of their lives because they live under the jurisdiction of the NCAA. The Maasai rely on pastoralism for their livelihoods, sustenance, and cultural practices which has been banned in all areas of the NCA. Similarly, agriculture is a staple in the income and survival for both Maasai residents and Karatu community members which has been severely restricted in these areas. The community members in this region interact with conservation more closely and experience the effects more intensely than the other two study regions.

Conservation Challenges

The co-existence of wildlife and humans have posed serious threats to people living in this region, putting human and livestock lives at risk. As shown in the graph below, 40% of the respondents argued that the most significant challenge they face with conservation is the threat of dangerous animals in their community. The HWC is especially present as a result of the multi-use land within the NCA. There are no barriers between wildlife and humans which allow for wildlife to harm or kill humans or the small number of livestock residents are allowed to keep. Restricted cultivation and agriculture in and around the NCA have situated community members

at a disadvantage financially. These challenges are burdensome distinctly when it comes to taking care of family needs. The following graph shows the most commonly mentioned challenges community members face by living near the NCA.

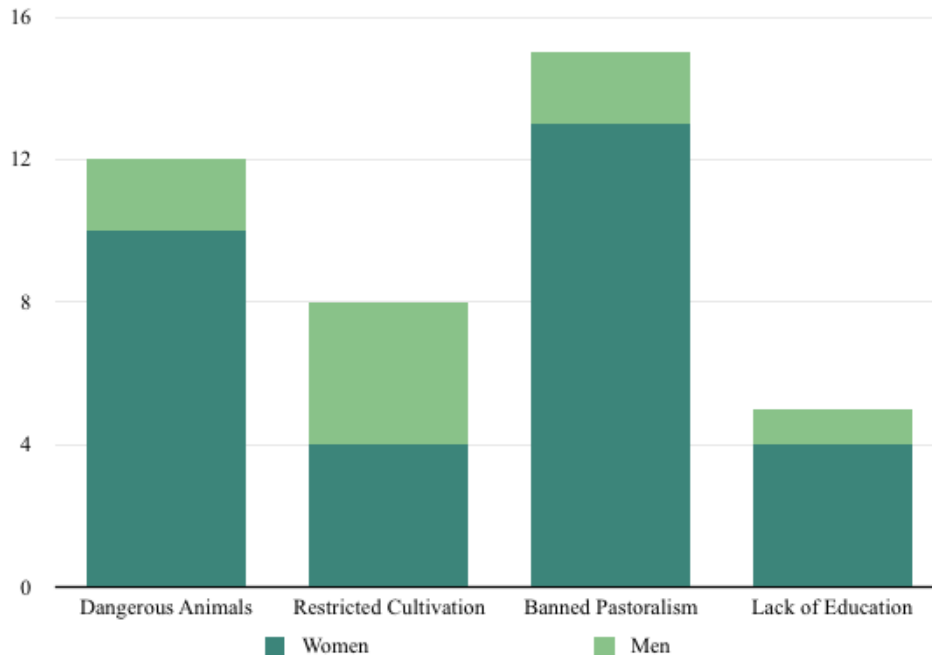


Figure 4. Challenges of Living Near Ngorongoro Conservation Area

Moreover, logging has been regulated and community members are not capable of supporting their family with the allotted amount of tree cutting. Families use firewood primarily for cooking and women face complications when they are not able to feed their families properly. Specifically with the NCA Outreach Program, members involved predominantly receive benefits from the cow donation, however, the benefits depend on the age and milk production of the cow. Community members often mentioned that they face challenges from being involved in the CBC program because of the lack of milk produced by their cow. This is the opposite of the predicted outcome of the implementation of the outreach program. Community members in this area especially noted that there are innumerable challenges faced in the interest of conservation.

Maasai residents in this area hold traditional ecological knowledge from the generations of family members living amongst wildlife and essential natural resources. This knowledge often contradicts the ecological practices that the NCA imposes on the residents which compromise cultural practices. Maasai have learned sustainable agricultural practices due to living in the

Conservation Area, however, the NCA banned any form of agriculture without listening to the Maasai approaches and knowledge. Many Maasai respondents argued that conservation could be improved and many challenges they face could be mitigated by integrating their traditional knowledge into the conservation protocol in the NCA. The NCAA has complete authority over the NCA and surrounding communities, therefore, they often overlook the skills and needs of the residents regardless of their experience or deprivation. Maasai women believe that combining their traditional ecological knowledge with the NCAA conservation rules will only enhance the level of effective conservation in their area.

The Maasai respondents also presented the barrier of education as a challenge of conservation. There is an inadequacy of schools in the NCA because the NCAA regulates any construction within the Conservation Area including the building of necessary schools. When there is access to education, children usually have to walk extremely far which incentivizes them to drop out of school. Maasai believe that conservation could be improved if education is improved because the level of conservation education will be elevated. Similarly, there is a lack of hospitals and health centers within the NCA which constitutes many severe health issues including a substantial amount of death amongst women. The NCAA avoids construction within the NCA because that puts a damper on conservation, however, the residents face many challenges due to these restrictions.

Conservation Benefits

Although residents in this area face an abundance of challenges, they receive comparable benefits from their involvement in conservation. 43% of the participants received the most benefits from community projects funded by the NCAA such as the construction of schools, hospitals, roads, and water systems. 13% of participants mentioned tourism revenue as an indirect benefit which is usually seen through the implementation of community projects. The chart below shows the breakdown of perceived benefits from the close proximity to the NCA.

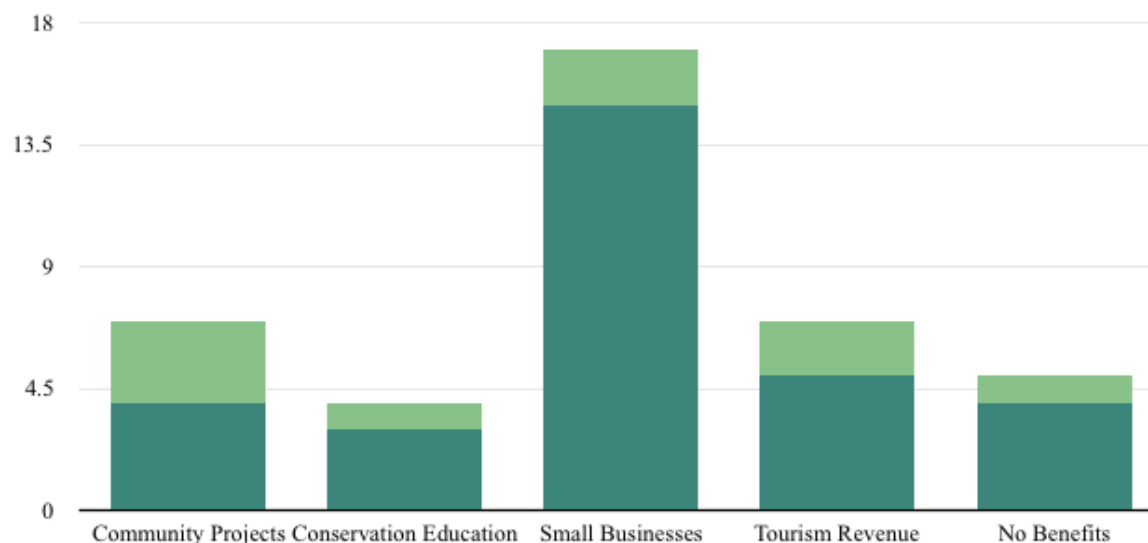


Figure 5. Benefits from living near/in the Ngorongoro Conservation Area

The Karatu residents involved in the NCA Outreach Program received a donation of a cow in order to support their families physically and financially. The NCAA created the program to relieve some of the challenges faced around the NCA and involve community members in the conservation process. The NCAA trained community members on the usefulness of cows while educating them on sustainable practices. This allowed for communities to learn more about the relevance of conservation in their communities and incentivized them to become involved in conservation. When the community members conserve firewood, plant trees, and farm sustainably, they receive more firewood and better rainfall for their crops. Through the program, women are able to use the milk and sell the offspring for financial support which has provided significant benefits to women involved in the project. With financial support, women have the monetary capability to use charcoal for cooking instead of firewood.

The Maasai NCA residents receive support through the Pastoral Council and Pastoral Women's Council (PWC) which advocates for the rights of people living under the jurisdiction of the NCAA. The PWC provides micro-loans for women to create businesses to sell small items to tourists passing through the NCA. This financial benefit allows for women to become involved in conservation and receive direct benefits from the conservation process. NCA residents also receive conservation support from various NGOs that educate community members on conservation and provide them with small livestock or education support. Women

receive conservation education which encourages them to conserve firewood, thus, bringing more rainfall. NCA residents also benefit from conservation through Cultural Bomas which brings in direct revenue from the tourism industry. These benefits allow for Maasai residents to support their families and send their children to school.

The tourism revenue in this area is significant because the NCA is the most popular tourist attraction in Tanzania. Although this revenue rarely trickles down to local community members, they benefit indirectly through NCA sponsored community projects. The NCAA has built hospitals, dispensaries, and schools with support from the tourism industry. These community necessities have relieved issues within the NCA and Karatu, allowing access to medical treatment and education. These projects are community driven by lobbying through community meetings and a written letter to the NCAA for the infrastructure needed. Water systems are essential and community members wrote a letter to the NCAA expressing their requirement for a water supply network. Their concern was heard and a system was put into place with funds provided by the tourism industry.

Women Empowerment and Gender Disparities

Women in this area are heavily impacted by conservation and restrictions imposed due to conservation practices. Women have the responsibility of collecting firewood for cooking and grasses for their animals in and around the NCA. This puts their lives at risk of encountering dangerous animals and injuries due to logging. To retrieve the firewood, women have to walk long distances and leave their homes for extended periods of time which puts a strain on their physical health and the well-being of their family. Women are unable to watch other their children and provide meals for their family when they are traveling far distances for firewood and other natural resources. Additionally, men travel out of the household to find employment or go to work, leaving women with the responsibility of fending off dangerous animals in their home and property. In rare circumstances, men abandon their family when they travel into town, leaving the women with the financial and emotional burden of raising a family. 18 out of 20 women exclaimed that women were more affected by conservation than men due to the gender disparities highlighted above. 4 out of 5 men responded that women and men are equally affected by conservation because they experience equivalent benefits and challenges from their involvement in conservation.

In the Karatu and NCA region, 70% of women responded that they felt empowered by being involved in conservation. Women in this area have been empowered economically through micro-loans and business education, socially as a result of leadership opportunities, and educationally by the means of conservation education and knowledge of their rights. Women are specifically benefited by micro-loans and Cultural Bomas because they gain financial independence from the men in the community, allowing them to support their children and family without the financial authority of the men. Typically, Maasai women do not work in their community which gives men the power in the family. Through micro-loans and women-specific Cultural Bomas, women have the ability to gain financial power within their family. Micro-loans often support beekeeping and honey-selling businesses or small jewelry-making businesses. These businesses directly relate to conservation through environmental conservation and the encouragement of the tourism industry.

NGO involvement has allowed women to learn and understand their rights within their families and communities. When women claim their rights, they are able to feel social empowerment and have a right to decision-making in their family and community. NGO involvement has also provided women with conservation education, a right they typically would not have before the implementation of women empowerment programs. The women involved in conservation have had the opportunity to become financially independent and gain control of their family assets.

3.3 Moshi Results

Conservation Relationship

Mweka Village members are specifically involved in the conservation process through the KINAPA Community Outreach Program. The participants were part of a mushroom farming program, fully funded by KINAPA. The community members wrote a letter to KINAPA expressing their need for financial support and poverty alleviation and KINAPA created a group of 25 community members for the mushroom project. KINAPA provided the group with funding to grow mushrooms, education on mushroom harvesting, and a tool for fighting poverty. In return, KINAPA educated these community members on sustainable logging and essential environmental practices to relay this knowledge to other community members.

Conservation Challenges

Contradictory to the other two study areas, community members in Mweka Village expressed limited challenges from living near a National Park. 59% of the participants expressed no challenges from conservation and the other respondents highlighted challenges but explained that they were not detrimental to their lives. KINAP is not a common habitat for dangerous wildlife and the community members do not face the challenges of the HWC in this area. They do not have to scare off these animals or fear the decimation of their crops and farms. As this is the most significant issue amongst the other study sites, community members in this area have a further accessible relationship with conservation.

Women face the challenge of restricted logging because KINAPA oversees all logging and firewood collection in and around the National Park. Men are not allowed to collect firewood, however, they still experience the effects if women are not allowed to collect the necessary amount of firewood. Women use the collection of firewood for cooking and selling to other people in the community to produce income. The use of bush knives while logging is an illegal practice that is punishable by the law which makes logging difficult. Since the establishment of this law, women have been trained on legal and sustainable logging practices to minimize the challenges of firewood collection. The regulation of businesses close to the National Park boundary has been a threat to the livelihood of people that rely on these for income. Only 4% of the respondents noted this as a challenge but the people affected by the closure of their business have been severely impaired. The chart below explains the breakdown of challenges faced by living near KINAP.

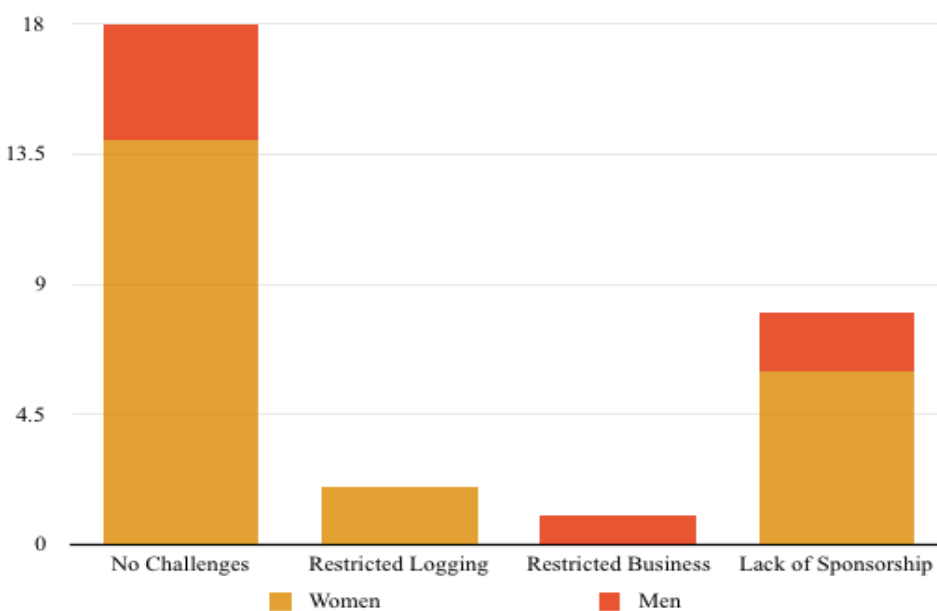


Figure 6. Challenges of Living Near Kilimanjaro National Park

All of the respondents agreed that the most consequential aspect of their involvement with conservation is the lack of market for selling mushrooms. KINAPA supports the CBC project by giving the group the funding to grow and harvest mushrooms but the members are unable to sell mushrooms in their community. The group was implemented to alleviate poverty which the mushrooms themselves provide sustenance for the members involved, however, they still have difficulties financially supporting their families. The group members argued that KINAPA should promote mushroom markets within the Mweka Village and give them a stipend to travel outside of their village to sell elsewhere. The community members receive benefits from their involvement in the program without the direct financial benefit deriving from the production of mushroom.

Conservation Benefits

44% of interviewees argued that the construction of schools, hospitals, dispensaries, and water systems by the means of tourism revenue were the most substantial benefit received from living near KINAP. KINAPA supports community projects based on the requests of local village leaders through funding from the tourism industry. These resources would not be accessible without the assistance from KINAPA and community members have found the construction of

these institutions incredibly beneficial to their lives. KINAPA also supports local community members by providing transportation to hospitals for people in dire need of medical attention. Community members have the ability to call KINAPA park rangers and request a ride to a medical facility, and, as seen in the graph below, 19% of the participants mentioned this as the main benefit of living near a National Park.

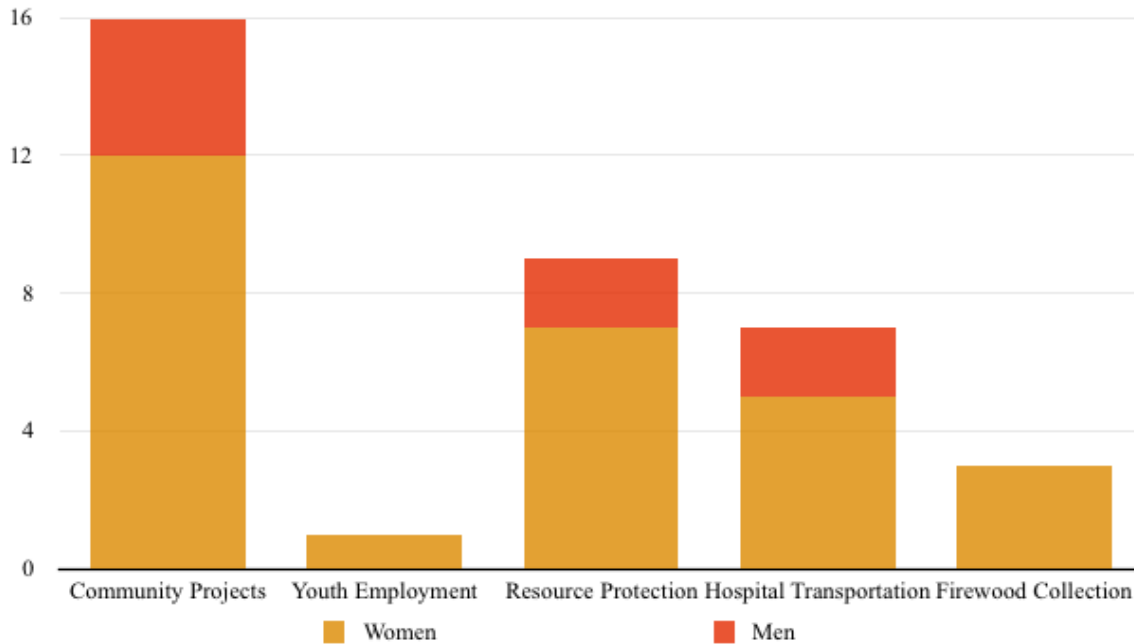


Figure 7. Benefits of Living Near Kilimanjaro National Park

Copious community members discussed the protection of the environment as a benefit of conservation. The preservation of the environment allows for more trees to use for firewood and produces more rainfall in the region. Protecting the environment and planting trees in the area largely benefits local community members through the consistent reproduction of trees used for harvesting. 25% of community members argued that the protected environment is the main benefit of conservation and 8% specifically mentioned dependable firewood collection as a sub-category of the environmental benefits. Although this season has been a particularly difficult season for rainfall, respondents still considered the abundance of rainfall due to effective conservation as a benefit to their livelihoods.

The group members involved in the KINAPA Outreach Program receive direct benefits from their involvement in the project such as food, financial capacity, and conservation

education. KINAPA sponsors the program through funding for mushroom production which provides food for families when they are able to harvest the crop. The group members suffer from low socio-economic statuses and high poverty levels and these issues are slightly alleviated by their involvement in the mushroom project. Mushrooms also hold medicinal value in the form of treatment for high blood pressure and other internal medical issues. The community members agreed that this was a direct benefit from growing and harvesting mushrooms in their community. Although the economic benefits are narrow, some members are able to sell mushrooms to other community members to receive a small profit in order to support their families. The community members hope to enlarge this benefit and create a market for mushrooms in their village. Group members also mentioned the important benefit of being involved in a supportive group within their community. The group members support each other when someone is in need of medical care or critical financial support. This has improved the lives of the members involved because they have a network of people supporting them in their community.

Gender Disparities and Women Empowerment

Women in the area are highly affected by conservation, corresponding with the other two study areas. Women have the household responsibility of collecting firewood for cooking and grasses for the livestock which puts them at risk for physical strain. They walk far distances for these resources, including water, and they can injure themselves due to the physicality of the task. There are a limited amount of tools allowed for logging and women face legal charges if they are found with an illegal logging resource. This can put women at risk with law enforcement if they are not educated on proper logging procedures. 18 out of 20 women responded that women are more affected by conservation due to the barriers presented above. Whereas, 2 out of 5 men answered that men are more affected by conservation because they are unable to conduct business outside of KINAP. Contradictory to the other study sites, 3 men answered that women were more affected by conservation than men because of their immense household responsibilities. They work closely with women in the mushroom project, thus, acknowledging the struggles women face in their daily lives.

100% of the women respondents answered that they felt empowered by being involved in CBC in their community. They exclaimed that they've become empowered economically,

socially, and educationally since the beginning of their involvement in the mushroom project. Women are empowered economically through the marketing of mushrooms and they anticipate this empowerment to increase over time with an expansion of demand for mushrooms. Furthermore, women feel empowered socially by receiving a leadership position within their community that typically would have been given to a man. They are able to be an equal member of a group and gain work experience through their involvement in the project. Additionally, mushrooms have medicinal value and women treat members of the community with mushrooms which allows them to feel empowerment within their broader community. They also feel empowerment through access to conservation education and knowledge about mushroom production. The women involved in the program have not had access to a high amount of education and this project has empowered them by educating them on conservation practices. In return, they have the role of teaching other community members on the importance and sustainable practices of conservation. Simply the education of mushroom growing and harvesting has helped women to feel empowered within their community. Overall, women felt the most empowered when they were able to gain access to education, support their families, and send their children to school.

4. Discussion

There is a direct causal link between CBC and women empowerment, however, applying one theoretical interpretation to the relationship will not explain the lived experiences of those interacting with conservation on a daily basis. Some of the benefits experienced from involvement in conservation coincides with empowerment, although empowerment is not the sought out benefit of community involvement. Many aspects of women empowerment impacted by CBC are also impacted by other institutions and policies. The government policies that shape conservation and community practices, as well as NGO influence on the funding and promotion of community projects, are emblematic of CBC shifting the experience of women in communities surrounding protected areas. While women experience empowerment from their involvement in CBC, this empowerment does not fix many hardships within their families and prolonged challenges due to conservation. This study seeks to understand the direct factors of CBC that empower the lives' of women involved and the critiques and advantages of CBC in their area that women discuss when speaking of conservation. The functioning of the

government, the effectiveness of NGOs, the geographical area, and the relationship to conservation all affect the presentness and level of empowerment. Despite the direct correlation between CBC and women empowerment, women reveal issues that contrast heavily with their definition of empowerment such as the challenge of feeding their family and sending their children to school.

4.1 Effective CBC

Many of the CBC projects around Tanzania have yet to be successful and contribute positively to community members which are represented in the sample population within Mto wa Mbu. Effective CBC is a culmination of economic, political, and non-governmental factors working towards a co-management of natural resources, comprehensive stakeholder decision-making, tourism revenue sharing, and conservation education. Long-term projects have been funded by conservation authorities or NGOs and have involved local government leaders and community members in the implementation process. When the central government and conservation authorities take local needs into consideration, CBC relates to the direct interests of the community and improves the issues that require the most assistance. The most effective CBC has involved and empowered women and educated them on sustainable practices surrounding protected conservation areas.³⁴ Comprehensively, the most effectively implemented CBC has provided conservation education, project fundings, and programs to mitigate challenges within the community.

4.2 Economic Implications and Poverty Alleviation

Tanzania has worked on adopting conservation policies that seek to find a balance between conservation and development goals. These policies have been created in response to local resistance to previous policies that were exclusive and ineffective. The new policies provide local communities with benefits from wildlife resources which motivates conservation action by preventing ecologically destructive activities. Realistically, local support for conservation efforts will only occur when the local economy is improved drastically. CBC is

³⁴ Interview with Hargeney Chitukuro, the Assistant Administrative Secretary of the Economic and Productive Sector of the Arusha Region, April, 2019

difficult to attain because balancing conservation with development is not easy and requires integrating conservation with the socio-economic requirements of local people.³⁵

Co-management of protected wilderness areas combines local people's knowledge of the area and the environment with modern science and technology. CBC is a positive incentive to become involved in the conservation process because it economically links people in communities and protected areas. CBC diversifies the socio-economy in communal areas to include wildlife and other natural resources. It also assists in developing a civil society where members can sustainably manage and benefit from their local natural resources.³⁶ CBC not only holds local communities accountable for sustainable activities, it also allows them to build up their economy and create ties with other local communities in Tanzania.

The conflict between local communities and conservation authorities is based on the premise that poverty drives biodiversity loss.³⁷ Impoverished communities depend on heavy resource use within protected areas as individuals seek to meet their daily needs or to improve their livelihood security. This narrative is also based on the idea that efforts to protect wilderness areas can exacerbate poverty when people are displaced from their traditional lands, disproportionately pushed or fined for unsustainable activities, or lose crops or livestock from the invasion of wildlife. CBC projects have been most effective when they link conservation outcomes with poverty alleviation. In return, protected area conservation tends to be more successful when it delivers more benefits than costs to local communities. These interventions reduce the root of the necessity for resources in protected areas through providing alternative resource management strategies through changing illegal behavior, creating local interest in conservation, and successful tourism revenue sharing.

4.2 CBC and the Government

Policies surrounding conservation aim to protect and preserve human activities such as livestock keeping and agriculture in areas around Conservation Areas and National Parks. These policies restrict grazing and other degrading land use that could block conservation practices in

³⁵ Ibid: 2

³⁶ Integrated Rural Development and Nature Conservation Website

³⁷ Roe, D. (2010). Linking Biodiversity Conservation and Poverty Alleviation: A State of Knowledge Review (CBD Technical Series). Secretariat of the Convention on Biological Diversity.

and around protected areas.³⁸ The government has the power to set guidelines on the construction of houses and other community infrastructure such as water sources. These acts of displacement or restriction are to protect wildlife corridors and habitats from harmful human activities. The collection of firewood and hay is guided by the government because the land is destructed through these practices. Overall, the human population in these areas are increasing while the land is not, therefore, there is an increase in demand for property and resources.

In order to incorporate humans into the conservation process, all stakeholders need to be involved in the decision-making process. When the central government is implementing a new conservation policy, restriction, or community project, they consult with local government leaders, village leaders, and occasionally NGO leaders. When the government is able to plan together with communities, they can build capacity and motivate community members to become involved. To create a community-based project, the government collaborates with land officers, ecologists, conservationists, and local leaders. The government attempts to present alternatives to harmful conservation practices instead of shutting them down completely. For example, tree-cutting for firewood is the main practice for cooking and the government educates community members on alternative activities such as brick-making or the creation of new stoves. These shifts often come from directly from TANAPA or from the Economic and Productive Sector of the government.

The government supports multiple CBC projects across Tanzania, providing funding for community necessities and conservation programs. The government provides funding for beekeeping and other economic activities to community members that fiscally support community members while practicing conservation. The government aims to provide soft loans with lower interest rates to help generate income. The government also oversees institutions such as the TANAPA, the NCAA, the National Environment Management Council (NEMC), the Tanzanian Forestry Service (TFS), and similar authorities spread out throughout Tanzania. These programs oversee conservation and CBC projects in their area. The NCAA has a budget from the central government specifically for the Pastoral Council which advocates for the rights of Maasai residents in the NCA.

These institutions implement women-specific programs in order to involve them in conservation and support them through challenges as a result of conservation. The government

³⁸ Ibid: 33

sees women's education as a high priority because they have the responsibility of taking care of children which requires financial capability. There are various micro-loan programs provided by the government and social programs that advocate for women's rights within their community and to speak in front of men. Governmental institutions also provide a small amount of health insurance for women because of the high death rate during pregnancy and birth. Chitikuro said, "These programs have to empower women with micro-financing."³⁹ The central government is interested in supporting women financially during the conservation process.

The main governmental risk factor of CBC is the lack of planning for conservation and community results. If the government does not plan for conservation outcomes, communities will be more highly affected by the results. The government mitigates this risk by thoroughly planning for conservation results. The government has found the most success with CBC through community understanding of the importance of conservation. When they educate community members on alternative land use practices and environmental conservation, CBC is the most effective. Through CBC and protected areas, poaching and bushfires have decreased which is the main goal of the government when establishing CBC projects. The government provides guidelines and education which often produces cooperation from community members involved. The most effective CBC has involved community members and local government leaders in the decision-making process.

The central government positively impacts local community members in areas surrounding National Parks and Conservation Areas when they provide funding for community-based organizations (CBO). An example of a women-specific CBO is found within the Pastoral Women's Council which is funded by the NCAA. The NCAA is overseen by the central government and receives funding directly from the tourism industry and government allotted stipends. The women's CBO in the NCA specializes with women empowerment, rights, and economics within the Maasai community. The CBO receives funding to educate girls and women on diseases, early pregnancy, and gender-based rights.⁴⁰ This organization also provides women with education focused on conservation laws and policies, conservation practices, and women's

³⁹ Ibid

⁴⁰ Interview with Program Coordinator for the Pastoral Women's Council CBO, April, 2019

rights regarding conservation. Women supported by the CBO receive training on environmental conservation in order to become a role model for other women within the community.⁴¹

This CBO is imperative to the Maasai women community in the NCA because women face significantly more challenges due to their household responsibilities. Men have the ability to travel outside the household, leaving women with the burden of malnutrition and lack of funding for children's education. This CBO has significantly improved the lives of women involved through the combat of gender-based violence and the education of their rights.⁴² The CBO also provides micro-loans for women to sell jewelry in Cultural Bomas to gain financial empowerment from their husbands which control all financial matters in the household. Additionally, the CBO trains women on sustainable alternative cooking methods such as charcoal use and reducing their firewood intake. The CBO also oversees beekeeping and honey-selling businesses which promote ecological and economic improvements within the community. The PWC and the conservation-specific CBO are examples of communities working alongside the government and the attempt of governmental reconciliation with communities facing severe challenges.

4.3 CBC and NGOs

Working with both governmental and nongovernmental organizations gives a wide variety of resources and skill sets to implement a unique and individualized program for a specific country or region. NGO involvement has improved the lives of community members impacted by conservation and has implemented effective CBC in many communities in Tanzania. Conservation NGOs aim to mitigate challenges imposed by conservation authorities and advocate for the rights of people living near the corridors of protected conservation areas. NGOs work alongside local government officials because they understand the needs of the community and have the ability to advise NGOs on what issues and groups of people to target. When NGOs have a strong link with the community and local government, their effectiveness increases and they have a broader impact. Internationally funded NGOs have the most success because they are able to financially support projects whereas Tanzanian NGOs rarely have significant funding to create and maintain projects.

⁴¹ Interview with the Secretary for the Pastoral Women's Council CBO, April, 2019

⁴² Ibid: 39

Alailelai Maasai Sustainability Organization (AMSO) is an example of an effective NGO that works with conservation and women's rights. This NGO is American sponsored and aims to empower women through livestock donations, education, micro-loans, and conservation seminars.⁴³ AMSO educates women on conservation practices, specifically the preservation of forests and bees in their area. They also provide women with goats to claim financial power within their families. This organization also provides health support for pregnant women that lack the proper resources for healthy pre and post-natal care. Overall, AMSO has seen its impact empower women economically, physically, and environmentally.⁴⁴ This specific NGO is significant to the study because multiple participants received support from AMSO or similarly governed NGOs. Likewise, NGOs in Tanzania provide an outside support system for marginalized communities that lack the necessary funding and resources for basic human rights and needs.

4.4 CBC and Women Empowerment

As expressed in the findings portion of this study, women tend to experience the effects of conservation more heavily than men, therefore, there is an importance of involving them in the conservation process. Women expressed that their empowerment allows them to educate and empower other women while promoting conservation within the community. Women involved in CBC experience empowerment through the forms of economic, social, and educational power in their families and broader communities. According to this study, living near the protected conservation area corridors without direct involvement in CBC do not feel any form of empowerment through the conservation process.⁴⁵

As expressed in the findings section, women feel empowered economically through micro-loans and the funding for growing and selling crops. CBC effectively empowers women if women receive economic benefits to support their families, livestock, and livelihoods. Women feel the most empowerment when they have the economic means to feed their families and send their children to school which highlights the importance of economic sectors within CBC programs. Women receive social empowerment through leadership within their community and

⁴³ Ibid: 26

⁴⁴ Ibid

⁴⁵ Interviews with women in Mto wa Mbu, April, 2019

an understanding of their rights. Women typically do not hold important positions in the community and lack the ability to speak up for their basic human rights, however, the involvement in CBC has allowed them to educate others in their community about conservation and their rights as a woman. Educational empowerment stems from the conservation education provided by the National Park, Conservation Area, or NGO supporting the project they are working with. Conservation education allows women to learn about sustainable practices that will preserve the natural resources they need for survival while allowing women to share their wealth of knowledge with the community. These forms of empowerment were seen in women in Karatu and Moshi due to their significant involvement in CBC projects.

Within the study, 57%-87% of women involved in conservation felt empowered from their relationship with CBC. Women living near protected conservation areas without direct involvement in conservation struggle to understand the indirect benefits of conservation and resent the challenges that conservation provides.⁴⁶ There is a lack of empowerment within communities that have yet to implement long-term CBC projects. Conservation practices have been more successful in areas that involve women in CBC because women are highly invested in conservation due to their household responsibilities. Generally, empowered women have the ability to feed their family and send their children to school which betters the community and allows the next generation to learn the importance of conservation.

4.5 Contradictions to CBC

Although CBC projects have provided various benefits and forms of empowerment for community members involved, there are remaining hardships and challenges present within these communities. The basis of CBC stems from mitigating challenges created from the implementation of National Parks and Conservation Areas on the basis that conservation has created significant issues within these communities. CBC aims to improve the quality of life for people involved but these projects typically target one problem area or issue within the community. Women expressed empowerment in one area of their life but faced many challenges in others. A common weakness of CBC is the failure to identify the different motivations affiliated with unauthorized resource use and extraction, and how the costs are manifested at the

⁴⁶ Interview with the Agricultural Officer of Mto wa Mbu, April, 2019

local level.⁴⁷ The central government rarely advocates for the rights of people affected by conservation and victims of conservation receive insignificant compensation for the ailments.⁴⁸ The need for CBC would be lessened if the government took evasive action when implementing conservation policies.

5. Conclusion

This study attempted to find a positive correlation between the involvement of CBC and the feeling of empowerment in female participants. Although the results were statistically significant, it is difficult to fully discern the relationship between these variables due to the emotional nature of the subject. 88% of women reported feelings of empowerment from their relationship with conservation and divided empowerment into the economic, social, and educational power within their families and communities. The most effective CBC projects prioritize economic advancements for people living near protected area corridors due to the high poverty rate in these villages. Women face a disproportionately high level of marginalization from conservation processes, thus the demand for programs that mitigate these imposed challenges to livelihoods.

The government has provided funding for CBC projects that administer economic productivity within communities surrounding National Parks and Conservation Areas, allowing community members to receive capital from their involvement in the program. Through this subsidy program, the National Park and Conservation Area authorities incentivize community members to partake in educational programs regarding conservation practices. The preservation of natural resources and the environment has created benefits for community members through the form of higher rainfall and an abundance of firewood. Gender disparities are present within conservation because women hold the responsibility of collecting firewood, tending to family-owned farms, funding education for children, and feeding their families. The influence of the government, NGOs, and local leaders impact the presentness of CBC and the level at which it affects women involved.

Women explain empowerment as the opportunity to be involved in the community, practice conservation, feed their families, understand their rights, and send their children to

⁴⁷ Ibid: 36

⁴⁸ Ibid: 25

school. Women involved in conservation receive benefits high enough to achieve the feeling of empowerment within their communities and families. Women have the ability to become financially independent, receive education, and become a leader within their community which is unconventional for women below the poverty line. The incorporation of women in the conservation process enhances the preservation of the environment and wildlife because women interact closely with the boundaries of protected conservation areas. When women feel empowered in their community and receive proper conservation education, they have the ability to relinquish this information onto other women, therefore, developing effective conservation in communities that personally interact with protected areas. Effective CBC brings a feeling of empowerment to women directly involved in the process which, in return, advances conservation and improves the relationship between local communities and protected area authorities.

5.1 Recommendations

This study has various implications for further research. A longer study would allow for more participants and a broader range of responses in each location. This would create a more accurate representation of CBC in Tanzania and would effectively analyze CBC in each location. I would also suggest locating direct officials overseeing CBC projects because they can help facilitate interviews. With similar involvement with CBC, this project would have allowed for more direct correlation and comparison between the different locations. In order to gain a more holistic idea of CBC and women empowerment, I would choose programs in each location that are supported by the protected area authority and provide similar resources and benefits.

Moving forward, I would suggest working solely with women translators because women respondents seemed to feel more comfortable when they are speaking directly to a woman. Answers were skewed due to the power dynamics present and working with a woman translator would lessen these biases. I would also recommend conducting study groups with only women or only men in order to receive more honest opinions on gender roles. When a man was present during focus groups, he often talked over women or on behalf of everyone in the group which did not allow women to contradict his answer or opinion. When a man was present, women often answered neutrally or in favor of the man's opinion but a group of only women allowed for more candid responses.

To understand CBC in a specific location, I would recommend conducting a case study in one area of Tanzania. It would be beneficial to spend a longer period of time in one location than a shorter amount of time in three. To receive a more in-depth idea of CBC, a specific city case-study would allow for a larger sample population and a better understanding of women empowerment through CBC.

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7. Appendix

Figure 1. Chi-Square Test

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	32.256 ^a	1	.000		
Continuity Correction ^b	28.576	1	.000		
Likelihood Ratio	36.455	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	31.669	1	.000		
N of Valid Cases	55				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.49.

b. Computed only for a 2x2 table

Figure 9. Informed Consent Form



Informed Consent Form

I am Ruby Krietzman and I am a student from the School of International Training. As part of my semester abroad program in Tanzania, I am studying successful Community-Based Conservation in areas surrounding National Parks. I would like to invite you to participate in a study I am conducting as a part of program. Your participation is voluntary.

Your participation will consist of answering a series of questions about your involvement in Community-Based Conservation and the impacts this project has had on your life. The interview will take approximately 30 minutes. You are being invited to take part in this study because I feel that your experience as a resident of this community can contribute much to the understanding and knowledge of the success Community-Based Conservation. Your name and personal information will not be divulged in the report.

If there are parts of this consent form that you do not understand, please do not hesitate to ask me. If at any moment you feel uncomfortable or wish to discontinue the interview please let me know! I have read and understood the previous passage and agree to take part in this study.

Figure 10. Sample Interview Questions

1. How old are you and what is your profession?
2. Can you tell me about your relationship with conservation?
3. Can you please describe your definition of CBC?
4. Are you involved in CBC in your community?
 1. How are you specifically involved in CBC in your community?
 2. How did you get involved in the project?
 1. Were you interested in getting involved in conservation before someone reached out to you?
 3. Are you working with a specific organization?
5. Are there any challenges of living near a National Park/Conservation Area?
6. Are there any benefits of living near a National Park/Conservation Area?
 1. Do you receive any direct benefits from the National Park/Conservation Area Authority?
 2. Does your community receive any benefits as a whole from the National Park/Conservation Area?
7. What are the main threats to conservation in your area?
8. Has your life changed since becoming involved in conservation?
 1. Has your life improved at all? If so, how?
 2. Has it caused any challenges? If so, what are those challenges?
9. Can you tell me your definition of empowerment?
10. Do you feel empowered in your community?
11. Have you felt empowered by being involved in conservation?
 1. How have you been empowered by being involved in conservation?
12. Are men and women differently affected by conservation in your community?
 1. Have you seen one gender more positively/negatively affected than the other?
13. Overall, has your community changed since becoming involved in conservation?
14. Do you see a need for conservation in your community?