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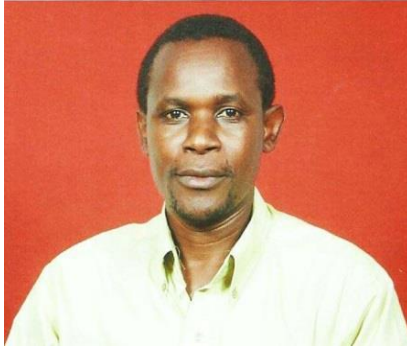
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HUMAN CENTRED APPROACH TO COMMUNITY BASED CONSERVATUIN IN MBIRIKANI, KENYA

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Abstract

Community based conservation has been used as model to encourage the community surrounding protected areas (PA) to participate actively in conservation program. Protected areas were created to conserve wildlife species and reduce human wildlife conflict (HWC). The community inhabiting the landscapes felt infringed as they could not access PA that were fenced for they needed to gather plants for medicine, firewood for cooking, pastures for their livestock. Conservation managers stepped in and created programs for the community that could benefit them as they protect the wildlife for tourism and for future generations. The program constituted benefits that the community would enjoy and need. These includes: health facilities, education scholarships, school structures, reduced poverty, alternative livelihoods and energy sources. Funds were set aside for the conservation project that has

kicked off in most PA and have been short lived for as soon as the funding was over the community were stuck. The projects were short term and were beneficial only for a moment which left the community feeling needy and discouraged. Hence the need for a long term solution to alleviate poverty amongst community members and meet their fundamental needs. An approach that is holistic and sustainable will improve livelihoods and create development in the region of conservation. Design thinking is one such approach that the researcher is implementing to identify community needs and solutions for the people. Human Centred design is a discipline in design thinking that works to create solutions for community members by involving them in decision making, planning and implementation stage of every project for sustainability and development purposes. Community at Mbirikani Group Ranch would be the case study to evaluate the approach used and its effectiveness towards conservation of wildlife in the area.

Key Words: *Community, Conservation, wildlife, Human Centred Design, Sustainable development*

Introduction

According to International Union for Conservation of Nature (IUCN), 'a protected area is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.' Protected areas are mandatory for conserving nature and the resources it has: food, clean water supply, medicines and protection from the impacts of natural disasters. Global awareness of protected areas is an

indispensable instruments in achieving the objectives of the Convention on Biological Diversity and the Sustainable Development Goals.

These protected areas were set up in areas with high populations of big mammals and are the emphasis of the wildlife policy act. It aims to protect wildlife species inside national parks and reserves and assist landowners to coexist with wildlife in conservancies through revenue from tourism and compensation for loss of life. In Kenya, protected areas that are governed by wildlife laws fall under three categories. These are: national parks (managed by the Kenya Wildlife Service), national reserves (managed by county governments) and conservancies (Whitelaw, King, & Tolkach, 2014).

Historically wild animals roamed the earth and multiplied in numbers until the era of urbanization, prevalent in Africa where encroachment into marginal lands inhabited by wildlife increases leading to habitat fragmentation, poaching, pollution and climate change (Maxwell, Fuller, Brooks, & Watson, 2016) (Makindi, Mutinda, Olekaikai, & Olelebo, 2012). Poaching and illicit trade in high-value species is rampart in Asian markets for use as medicine, luxury foods and ornaments being one of the main reasons for wildlife population decrease (Challender 2011; Biggs et al. 2013; Underwood et al. 2013). Changes in climate have affected biodiversity across the globe to near extinction. (WWF, 2018) (Foundation A. W., 2016) Global warming caused by carbon footprint has altered the patterns of wildlife migratory patterns. Wildlife population of some species is endangered and nearly extinction according To IUCN Red list. Without measures to restore wildlife

African elephants, Lions, Grevy zebra and Rhinos will be historical. Future generations will not have a glimpse of the spectacular wildlife in their habitat but will be a story that necessitates imagination to experience the majesty of the species. Hence the need for conservation and programs that are geared towards wildlife increased population, biodiversity conservation and community conservation.

Community conservation by definition is one which community members are involved in efforts to protect the landscape and environment they inhabit through the highest levels of participation and that they gain economically from wildlife. Community-based conservation (CBC) is an approach to biodiversity conservation in protected areas through participation at all levels with local communities. The community is aware of the benefits accrued from conserving wildlife population to attract tourists and tourism in the area.

The traditional reliance on government sources to support protected areas is increasingly untenable, in both the developed and developing world. Conservation benefits deriving from short-term project expenditure are only sustainable if either external funding continues to be pumped in, or if local revenues rise to replace it, and grow with local needs and aspirations (Hulme & Murphree, 2001). Different authors have cited debates arising from community involvement towards conservation programs. These arises from questions on distribution of resources is not equitable, involvement of community in decision making (passive participation), little compensation during loss of crop, life or livestock and projects that were not delivered due to short term goals from donors.

This paper fills an important gap in current understanding of conservation-based conservation nexus debate. It seeks to (1) determine local perceptions of livelihood improvement through protected area management and tourism. (2) analyse models of conservation that are sustainable in the long term. (3) examine use of Human centred design to empower the communities to implement conservation programs through active participation.
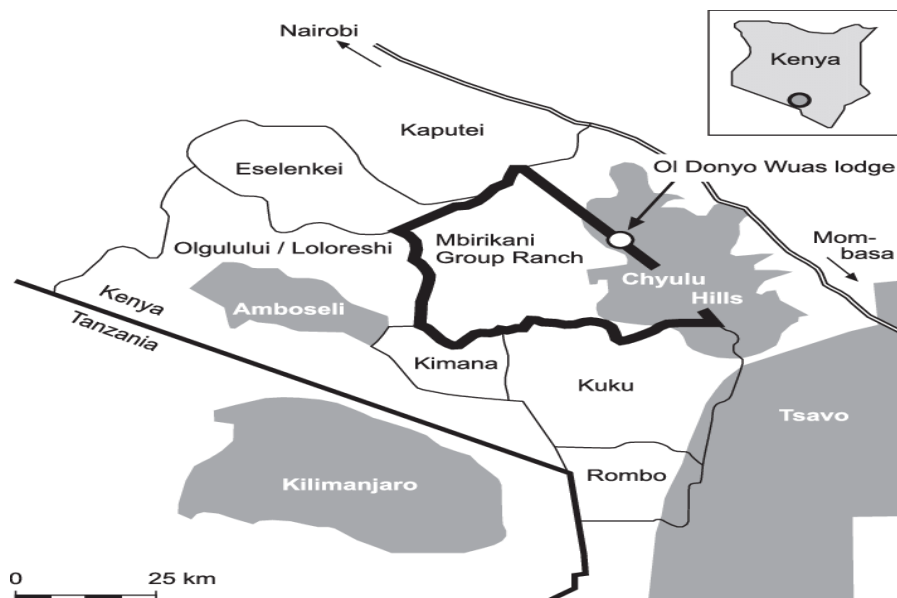
Methodology

Study area

Figure 1 Location of Mbirikani Group ranch
Source: Research gate

Mbirikani Group Ranch (MGR) lies on 130,000 ha of land in Southern part of Kenya . It is bordered on the eastern edge by the Chyulu Hills National Park, which connects it to Tsavo West National Park, and Amboseli National Park is close to the western boundary. The

Ilkisongo Maasai community owns this land with a membership of 4650 members who are registered (Groom & Harris, 2008). It is a flat area with electricity and piped water servicing its community. Wild animals thrive in this environment with vast numbers of herbivores from Amboseli and Tsavo West National Park. Big life Foundation and Ol Donyo Wuas Trust have been working with community members to conserve wildlife through employment opportunities available, providing security, education and revenue benefits from tourism. "The revenue-sharing program from Amboseli reflects the use of the Ranch as a wet season dispersal area for the Park's wildlife. Each year, Mbirikani Group Ranch committee receives 850 000 Kenya shillings (US$ 12 143) from Amboseli gate fees (Groom & Harris, 2008).

The researcher used random sampling of interviewees using questionnaires with structured questions. The community members sampled were from male and female gender to get a complete view of wildlife interactions from both sides. Several questions were asked to measure their understanding of wildlife conservation and community conservation. The responses were positive with members citing examples of wildlife that is endangered in the area (Rhino Lions and Pangolins). They have adopted conservation policy by having a native name for conservation '*Era matare ongwesi'*. There was one voice in responding to No" when asked if they would participate in poaching for a small fee.

Community participation was measured by soliciting responses to several (yes/no), (often, regularly, never) statements. The responses included: 1) I often attend meetings for conservation 2)

Yes I participate in conservation programs 3) yes I do speak at the meetings. Gaps that stakeholders such as the government needed to provide some amenities that re lacking. The responses varied from 1) schools 2) Provision of water 3) women empowerment 4) Fence and 5) prompt compensation.

Discussion

Drawing on community conservation and protected area literature focused on conservation models used in the past and the success indicators, this study examined individual member's perception of Community-Based Conservation (CBC) in relation to participation and the benefits from conservation and development efforts including tourism, improved livelihoods, availability of resources and infrastructure.

Further, the study examined associations between stakeholder involvement, human- centred design (HCD) and sustainable development. Participation used by conservation managers is a top down approach through passive participation whereby people are told what has been decided or what is to happen (Hulme & Murphree, 2001). This approach has not been effective as only leaders and employees (lodge staff, scouts and rangers) actively participate while the rest of the population are indecisive about conservation.

Sustainable Development is vital to successful conservation of wildlife and communities. Effective implementation requires integrated planning with the community as key stakeholders to the project. As an embodiment of the long-term view of wildlife

conservation, it is necessary to deal with human wildlife conflict at the root level by developing the approach of community conservation management, in developing these CC, we need to asses constraints of compensation payments, which may not always incentivize conservation (Paudel, Potter,G, & Phelps J., 2019). A more sustainable way of CC is evaluating the assets that exist within the community at the grass root level. To assume that all communities surrounding conservancies experience poverty will be an understatement as the Maasai communities have wealth through their cattle and land resources. Policies developed and implemented should be context applied to encompass the characteristics of the area. Analysis of policies should be evaluated and communicated with the members of the community for effective active participation that goes beyond cultural barriers and constraints as discussed by participatory design for community development.

Human- centred design (HCD) is a way of thinking that places the people you're trying to serve and other important stakeholders at the centre of the design, innovation and implementation process. "Today's human centred design is based on the use of techniques which communicate, interact, empathize and stimulate the people involved, obtaining an understanding of their needs, desires and experiences which often transcends that which the people themselves actually realized (Giacomin, 2015). Humans have been coexisting with wildlife and natural resources freely before any scientific invention or adoption of conservation programs. Wildlife thrived in their habitat and so did the communities living alongside. Then science came and proposed use of protected areas to keep animals in and people out-Fortress Conservation Model. This created a huge debate and it was deemed inhuman and sustainable

development was adopted in its place having people and wildlife coexisting with certain measures in place to create order. The design-based approach towards innovation encompasses multiple elements from traditional indigenous knowledge practices, a systems approach and a holistic approach to community based conservation of biodiversity.

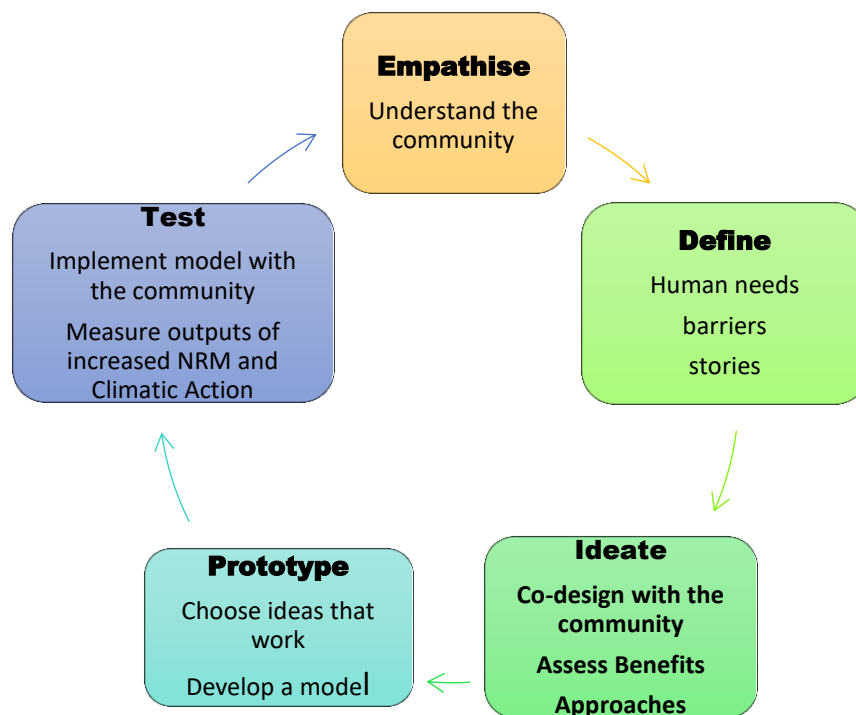Figure 2 are the steps taken in HCD approach:

Figure 2: HCD Model
Source: Author

Big Life Foundation is a private non-governmental organization established in 2003 that works with the community in Mbirikani to conserve wildlife. The model they have adopted is a HCD approach that has worked and can be implemented in other conservancies in Kenya. The organization has empowered the community through training, governance and alternative livelihoods for sustainability.

The community members have achieved the well-being index through success indicators of health, environment, physiological and physical factors, environment, health and social domains. There are still needs that need to be met but BLF stands out as an exemplar case study in developing countries.
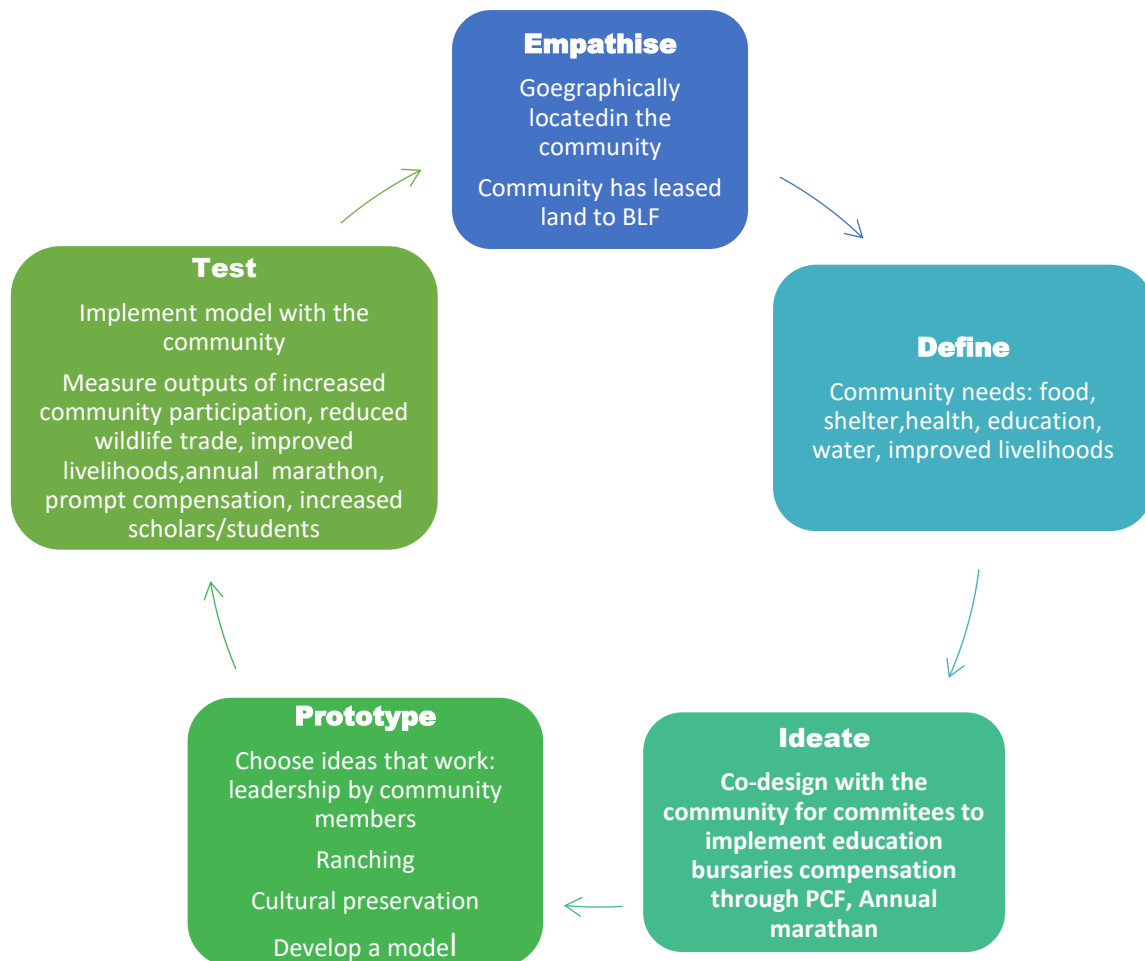
Figure 3 is an analysis of the BLF model:

Figure 3. Big Life Foundation Model to CBC
Source: Big Life Foundation

Conclusion

Sustainability of any project is mandatory to its success. Sustainable development goals (SDGs) stipulate the need to have: Goal 7: Affordable and clean energy use, Goal 12: Responsible consumption and production, Goal 15: Life on Land. Community conservation in Kenya seeks to develop strong relationship between the community and the environment to increase wildlife population and tourism in the country. Conservation projects have been implemented in different regions and its success rate is dwindling as an effective approach to alleviate communities from their current situation. The reasons have been cited by literature where various authors have questioned the conservation models used in the past. They lack community involvement and sustainability which is a key pillar in development projects.

The main actor, the community, is missing in the development process of project as they are not involved in the decision making and planning phase. Involvement is at the implementation phase of the project. Community based conservancies rely on government and non -governmental institutions for financing and when it stops so does the project hence the need for community empowerment to run projects in the long term.

BLF has empowered the Maasai community at Mbirikani Group Ranch through active participation and involvement of all stages of conservation programs so that they can uphold the project now and into the future. Human centred approach places the community at the heart and seeks to develop solutions for the members after assessing their assets and what needs that haven't been met and

creates a model with the members for the members. Social innovation calls for developing and implementing effective solutions to current global issues, by prioritizing people and planet first. Creating solutions facing wildlife decrease in population and habitat degradation through climatic change and human activities through assessing alternative approaches to meeting needs in a less harmful way. Biodiversity conservation should be geared towards improved quality of life now and future generations to come.

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