



## **Equity implications of natural resources conservation, management and use in the lowlands of Samburu County, Kenya: A landholders' perspective**

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### **ABSTRACT**

This research was motivated by a dearth of empirical evidence on equity in wildlife conservation initiatives. We therefore purposefully selected four conservancies in the lowlands of Samburu County to address this shortcoming. We used qualitative and quantitative approaches in data collection and analysis. We examined equity using a three-tiered equity framework (recognitional, procedural and distributional). We found the existence of inequities in access, decision-making and outcomes. We argue that the inequities are exacerbated by the failure to acknowledge the pre-existing societal structure and dynamics. Other factors include the historical marginalization of the region by the Kenyan national government over the years and the emergence of nepotism and elitism in the distribution of resources. Therefore, relevant stakeholders should re-evaluate their current strategies for the design and implementation of wildlife conservation initiatives and pay keen attention to context-specificity. Mechanisms for fostering transparency and accountability in the conservancies should also not be ignored.

Keywords: Conservancies, inequity, marginalization, samburu, wildlife

### **RÉSUMÉ**

Cette recherche a été motivée par un manque de preuves empiriques sur l'équité dans les initiatives de conservation de la faune. Nous avons donc délibérément sélectionné quatre conservatoires dans les basses terres du comté de Samburu pour combler cette lacune. Nous avons utilisé des approches qualitatives et quantitatives dans la collecte et l'analyse des données. Nous avons examiné l'équité à l'aide d'un cadre d'équité à trois niveaux (reconnaissance, procédure et distribution). Nous avons constaté l'existence d'iniquités dans l'accès, la prise de décision et les résultats. Nous soutenons que les inégalités sont exacerbées par l'incapacité à reconnaître la structure et la dynamique sociétales préexistantes. D'autres facteurs incluent la marginalisation historique de la région par le gouvernement national kenyan au fil des ans et l'émergence du népotisme et de l'élitisme dans la répartition des ressources. Par conséquent, les parties prenantes concernées devraient réévaluer leurs stratégies actuelles de conception et de mise en œuvre d'initiatives de conservation de la faune et accorder une attention particulière à la spécificité du contexte.

Les mécanismes visant à favoriser la transparence et la responsabilité dans les réserves ne doivent pas non plus être ignorés.

Mots-clés: Conservatoires, faune, iniquité, marginalisation, samburu

## **INTRODUCTION**

Equity is a core pillar of both sustainable development and universal environmental justice (Brundtland, 1985; Corbera and Adger, 2004; Rosa *et al.*, 2007). It is recognized as a component of conservation success (Campese *et al.*, 2009; Ban *et al.*, 2013; Halpern *et al.*, 2013) and relates to how a person or group perceives the proportional availability of goods and services or their relative deprivation in comparison to others (Loomis and Ditton, 1993). Equity can be defined in terms of satisfying stakeholder objectives or minimizing trade-offs (Law *et al.* 2017). Within payment for ecosystem services (PES) schemes, the 'needs-based rule' of equity is popular since it not only advocates for equal satisfaction of basic needs for all stakeholders but also focuses on the distribution of socio-economic benefits amongst the most disadvantaged PES scheme participants (Konow, 2001). As a result, Franks *et al.* (2016) emphasize that attaining conservation's social goals can be better achieved through a shift in approach from a livelihood framing to an equity framing. This entails focussing on the recognition of, procedures for and the distribution of the outcomes of a conservation initiative (Schreckenberg *et al.*, 2016; Zafra-Calvo *et al.*, 2017). All of these are important determinants to the extent that conservation interventions are perceived to be fair and legitimate by stakeholders. In the global conservation context, the Convention on Biological Diversity formally introduced the aim of attaining equity in conservation initiatives (Franks *et al.*, 2016) with emphasis on the equitable sharing of responsibilities, rights, costs, and benefits amongst the stakeholders involved (Borrini-

Feyerabend *et al.*, 2008). Therefore, clarifying the tiers or dimensions of equity being measured is important for enhancing the understanding of the relationship between conservation success and equity, as equity concerns arise from both internal and external factors such as social, economic, or geographic status of the region under study (Klein *et al.*, 2015).

The northern Kenya region, including Samburu County, which is the focus of the current study, has been politically marginalized in comparison with the rest of the country, resulting in inadequate to non-existent infrastructure (Straight *et al.*, 2016). Despite this, the region has gained the interest of Kenya's national government of late as evidenced in flagship projects such as the Lamu Port-South Sudan-Ethiopia-Transport (LAPSSET) corridor program and the Lake Turkana Wind Power project in Marsabit County amongst others (LCDA, 2016; Cormack and Kurewa, 2017). The historical marginalization of Samburu County, as well as other arid and semi-arid rangeland (ASAL) counties of Kenya, show the presence of inequity in the allocation of resources by the national government, a disadvantage in areas richly endowed with wildlife resources living outside protected areas, thereby supporting the coexistence of pastoralism and wildlife conservation as primary land uses (Ocholla *et al.*, 2013).

In other ASALs of Kenya such as the southern rangelands, Ondicho (2010) reports the inequitable distribution of benefits, rights to land resources and livelihoods, and democratic decision-making processes as challenges hindering the Maasai community from

benefitting from wildlife tourism enterprises. Equity-related problems such as competition and power struggles for political control over the benefits from tourism have left the community polarised into splinter groups based on clan, age, gender, and socio-economic status. At a broader scale, the areas' tourism potential has been heavily exploited by foreign tourism investors and tour operators, the Kenyan government and local elites reflecting the asymmetry in power relating to conservation politics (*ibid.*). In northern Kenyan rangelands (the focus of the current study) inequity in wildlife conservation outcomes has been documented (e.g., by Sumba *et al.*, 2007; Komu, 2013; Lamers *et al.*, 2015) as leading to the demise of once successful community-based conservancies (Muthiani and Kristjanson, 2003; Nthiga *et al.*, 2008). However, we currently lack empirical studies to investigate whether this observation holds. It is acknowledged that conservation actions generally tend to benefit more some stakeholders or groups than others, thereby affecting the probability of attaining conservation goals (Klein *et al.*, 2015). Moreover, in studying equity in conservation, research has been skewed towards distributional concerns whilst paying less attention to other aspects (Friedman *et al.*, 2018). According to Ehrlich *et al.* (2012), the ideal outcome of conservation is the attainment of a 'triple bottom line' that entails achieving equity alongside economic and environmental benefits. However, Halpern *et al.* (2013) underscored that equity is hardly formalized in conservation decision processes. Furthermore, little is known regarding the incorporation of equity in the wildlife conservation initiative in the lowlands of Samburu County of Kenya. It is in line with these observations that we aim to document the equity implications of natural resources conservation, management and use by focussing on wildlife conservation, from a landholders' perspective by using community conservancies as the focus of our study, in the lowlands of Samburu County in northern

Kenya. Specifically, we investigate how recognitional, procedural and distributional aspects of equity are incorporated in wildlife conservation initiatives in the study area.

This study is vital since there is growing interest in exploring the degree to which existing inequalities are reinforced under conservation initiatives (Roth and Dressler, 2012; Mahanty *et al.*, 2013; Rodriguez-de-Francisco and Budds, 2015) and the extent to which socio-economic benefits from these initiatives are distributed (Ferraro and Simpson, 2002; Corbera *et al.*, 2007). Furthermore, the study of (in) equity is an imperative milestone for addressing injustices in conservation initiatives (Mbembe, 2017; Mollet and Keep, 2018; Büscher and Fletcher, 2019). We employ the use of a three-tiered equity framework (recognitional, procedural and distributional) to attain our objective of studying equity in wildlife conservation in the lowlands of Samburu County. The framework has been employed by other researchers, for instance, Corbera *et al.* (2007), in studying equity in payment for ecosystem services schemes (PES). As the concept of equity is strongly associated with the ideas of fairness and justice (Konow, 2001), it may be an important indicator of, and a positive influence on, growth and development in societies (Walton *et al.*, 2008). Furthermore, concern over environmental equity, the equitable distribution of costs and benefits that are consistent with the equitable stakeholders' inclusion in conservation initiatives as well as their self-identities, histories, and traditions (Sikor, 2013) is imperative for the successful implementation of the initiatives and sustainability of resource use.

## MATERIAL AND METHODS

**Study area.** Samburu County covers an area of 21,022 Km<sup>2</sup>. It is bordered by Turkana County to the Northwest, Baringo County to the Southwest, Marsabit County to the North

and Northeast, Isiolo County to the East and Laikipia County to the South. The county lies between latitudes 0°30' and 2°45' north of the equator between longitudes 36°15' and 38°10' east of the Prime Meridian. Samburu Central, East, and North are the county's administrative units (RoK, 2018). According to Spencer (2004), the southwestern part of the county is dominated by Leroghi Plateau, characterized by open savannah and grassland. To the north and east, the land drops sharply to desert and thorn bush, interrupted by intermittent hills and forested mountains. Pastoralism and wildlife conservation are the primary land-use practices in the county (RoK, 2018). Even though most of the Samburu community in the study area pursues a pastoralist livelihood, they are increasingly diversifying their livelihood options. This is seen through wage labour, petty hawking, livestock marketing, and the practice of livestock keeping and wildlife conservation (Ocholla *et al.*, 2013; Straight *et al.*, 2016).

**Sampling design.** In this study, we used a four-stage sampling process. At the onset, we used purposive criteria (as described by Etikan *et al.*, 2016; Bernard, 2017) to select four out of six conservancies operating under the Northern Rangelands' Trust (NRT) umbrella in the Samburu East sub-county. These were Namunyak Wildlife Conservation Trust (NWCT) (comprising Kalepo, Nalowuon and Ngilai units), Meibae Community Wildlife Conservancy<sup>1</sup> (MCWC), Westgate Community Wildlife Conservancy (WCWC) and Kalama Community Wildlife Conservancy (KCWC) which are shown on the map in Fig. 1. For representativeness, we used random selection to choose half of the zones (villages) in each of the conservancies. This was achieved by assigning numbers to all the zones in a conservancy and writing the numbers on uniformly cut pieces of papers that were folded, mixed and thrown to the ground, and indiscriminately picking half

the numbers. Third, systematic selection of every fourth homestead (manyatta/enkang) for the household interviews. A nearby path was often used as the starting point for the sampling procedure. The selection of every fourth homestead in each of the villages or zones provided a sample size that was representative of the study population. Lastly, the selection of household<sup>2</sup> heads was done once in the homesteads. In the absence of a household head, a representative who is old enough and who possessed knowledge about the research topic was often selected as the household representative. This followed the premise that any member of the household who was 18 years and above was an adult qualifying them for participation in the research. We would then ask the individuals if they were aware of the operations of their respective conservancies and any partnerships that the conservancies had. Those who acknowledged that they were aware, we then proceeded to interview them. For those who blatantly told us that they did not know what goes on with their respective conservancies (whether members or non-members), we would then omit them.

**Data collection and analysis.** We collected data for six months between February and August 2018. A pilot study was conducted for a month before the actual study. The pilot study served to familiarize us with the area and make initial contacts, test the data collection tools and approaches, and then adjust them accordingly based on the field experience. Individual household interviews (as described by Varkevisser *et al.*, 1993; Opdenakker, 2006) were used to collect data and sampling was based on the zones/villages in the four conservancies. To determine the number of household interviews conducted within the zones, the probability proportional to size formula suggested by Yates and Grundy (1953) was employed:

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<sup>1</sup> A conservancy is a collection of lands unified under a singular management plan for the purpose of collectively enhancing conservation and natural resource use (Waterhouse, 1994).

<sup>2</sup>A household in this study is defined as a basic unit of shared economic production and resource utilization (Casley and Lury, 1981).

$$n = \frac{Z^2 p(1-p)}{e^2} w$$

where  $n$  is the sample size,  $z$  (1.96, two-tailed, because the 95% confidence interval level allowed for the testing of any significant difference between conservancy members and non-members) is the desired  $z$ -value yielding the desired degree of confidence,  $p$  is an estimate of the population proportion, and  $e$  (0.05) is the absolute size of the error in estimating  $p$  (0.2) that the researcher is willing to permit. In this study, a  $p$ -value of 0.2 was used because about 80% of the population in the study area are members of community conservancies or their respective group ranches. A total of 240 household interviews that comprised conservancy members and non-members were conducted and only 235 (209 and 26 for

conservancy and non-conservancy members respectively) were included in the analysis because five were considered incomplete. Methods employed in data collection comprised the use of key informant interviews (KIIs), a standard data collection tool that entailed interviewing a select group of 22 individuals who provided needed information, ideas, and insights on the subject under study. KIIs provided flexibility to explore new ideas and issues unanticipated during the planning phase of the study (Kumar, 1989; Barker *et al.*, 2005). The criterion for sampling key interviewees was as follows: first, interviewees were categorized to represent the multiple stakeholders in the conservation partnerships. The categories included private investors, community members, national and local conservation stakeholders such as the Kenya

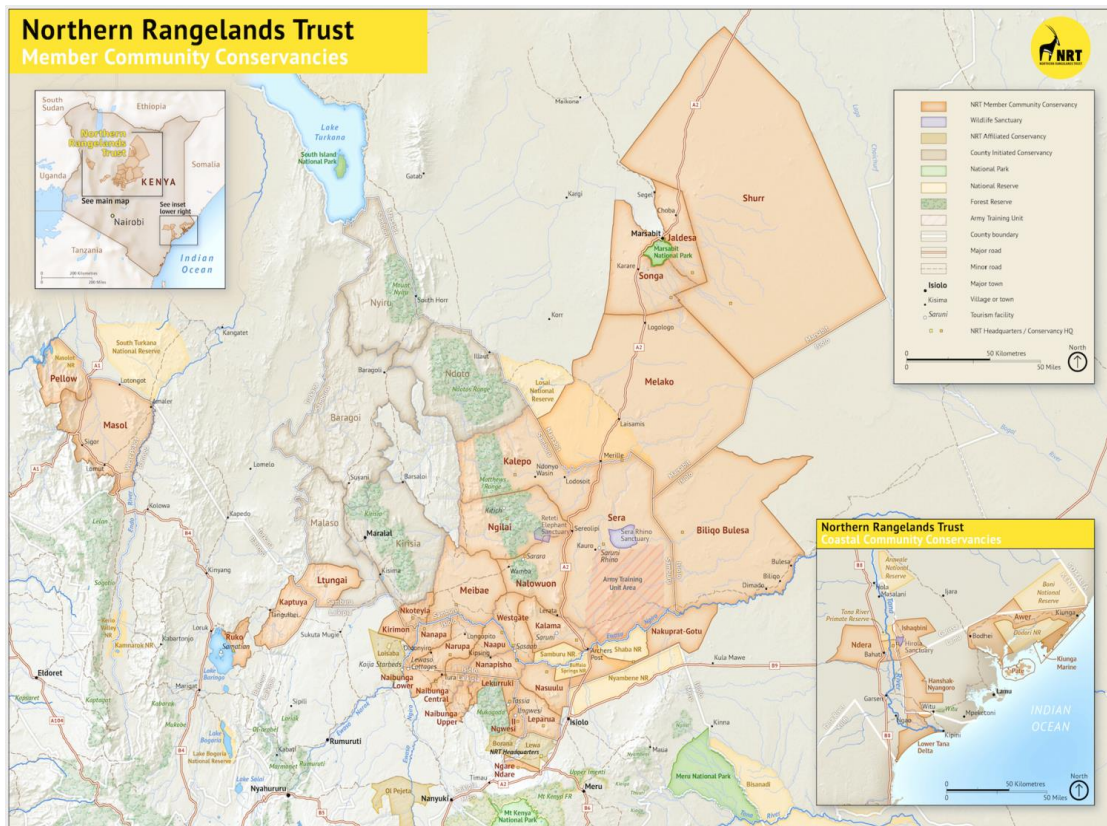


Fig. 1. A map showing the conservancies under study (Source: NRT, 2020)

Forest Service (KFS), Kenya Wildlife Service (KWS), NRT, and conservancies under study. Second, interviewees were selected from these organizations based on the nature of the knowledge they possessed regarding the partnerships based on the number of years served in the position and their familiarity with the conservation landscape in the study area, the role they had in the partnerships as well as through snowball sampling. Interviewees therefore included NRT, KFS, KWS, Ewaso Lions, Samburu National Reserve (SNR), Action for Cheetahs in Kenya (ACK), and Save The Elephants (STE) personnel, private investors, community leaders and representatives (managers and rangeland coordinators) of the community conservancies under study. Contact with the interviewees was made before the interviews and informed consent was sought before the start of the interviews by informing the respondents that the information was for academic purposes. For those informants who agreed to be identified by their actual names and position in their organizations in write-ups, consent was given. Interviews were conducted until no new information emerged. The key interviewees comprised seven from private organizations, five from tiers of government, one investor, three chiefs, and two conservancy managers and four rangeland coordinators. All interviews were later transcribed from a tape recorder for analysis.

We also used focus group discussions (FGDs) to gather data. They are a research methodology where a small group of participants gather to discuss a specified topic or issue to generate data. Our discussions were limited to ten individuals in a group of mixed genders and ages, and women only. There was a moderator and a note-taker during the discussions. The moderator made effort to ensure that each person was accorded the chance to provide their views without others dominating the

process (Merton *et al.*, 1990; Kitzinger, 1995; Wong, 2008; Krueger and Casey, 2014). In the end, seven FGDs were conducted. We also used observations and informal discussions to gather data. An observer-as-participant manner of observation was employed (Meyer, 2001). As observers-as-participants, we attended an elders' meeting at the NRT headquarters, annual general meetings (AGMs) of two conservancies, SCG public participation forum on budget allocation, and peace awareness meetings in the conservancies under study. Moreover, several informal discussions were conducted mainly with the community members such as women, morans and men. We also used secondary data sources (conservancies' partnership agreements, annual reports, registers, and meetings' minutes) to collect data. The data was analyzed through the Statistical Package for the Social Sciences (SPSS) version 23.0. Qualitative data was synthesized to draw sensible information that complemented the quantitative findings. Coding techniques for finding and marking the underlying ideas, grouping similar kinds of information together in categories and relating different ideas and themes to one another were used in the analysis of qualitative data (Rubin and Rubin, 1995).

**Study's analytical framework.** In this study, we employ the framework proposed by Brown and Corbera (2003). The framework distinguishes between equity in access, decision-making and outcomes. In the lowlands of Samburu County, specifically for the population engaged in wildlife conservation through community conservancies, equity in access determines how individuals participate in the wildlife conservation initiative, and this is contingent upon access to information, background knowledge and social networks that the Samburu community has formed over the years. Law *et al.* (2018) term equity in access as recognitional equity that entails 'equitable

respect for knowledge systems, values, social norms, and rights of all stakeholders in policy or program design and implementation’.

Equity in decision-making concerns the recognition and inclusion of stakeholders in making strategic decisions. It is termed ‘procedural equity’ and is analysed according to accountability and responsiveness concerning local communities (Brown and Corbera, 2003; Di Gregorio *et al.*, 2013). Relevant to our Samburu case study, Ribot (2006) underscores the need for; assessing the extent to which the community is represented on the conservancy boards, the nature of their appointments and the frequency of regular elections as fundamental to procedural equity within the conservancies. Equity in outcomes concerns the distribution of project outcomes, economic benefits, and perceived fairness. According to Loft

*et al.* (2017), perceptions of equity can be ‘powerful determinants of human behaviour’. Distributive equity offers households and communities incentives to change or maintain land management practices that are consistent with the PES scheme(s) being implemented (Pascual *et al.*, 2010; Loft *et al.*, 2017).

## RESULTS AND DISCUSSION

**Equity in access.** A general conservancy management structure is outlined in Fig. 2. A group ranch (GR), defined as a demarcated area of rangeland in which a group of pastoralists graze their individually owned herds, possesses official land rights (Oxby, 1981) and has a restricted number of registered members (Galaty, 1980). We found that some conservancies (e.g., KCWC) have a harmonized management structure with their respective GRs. The registered conservancy

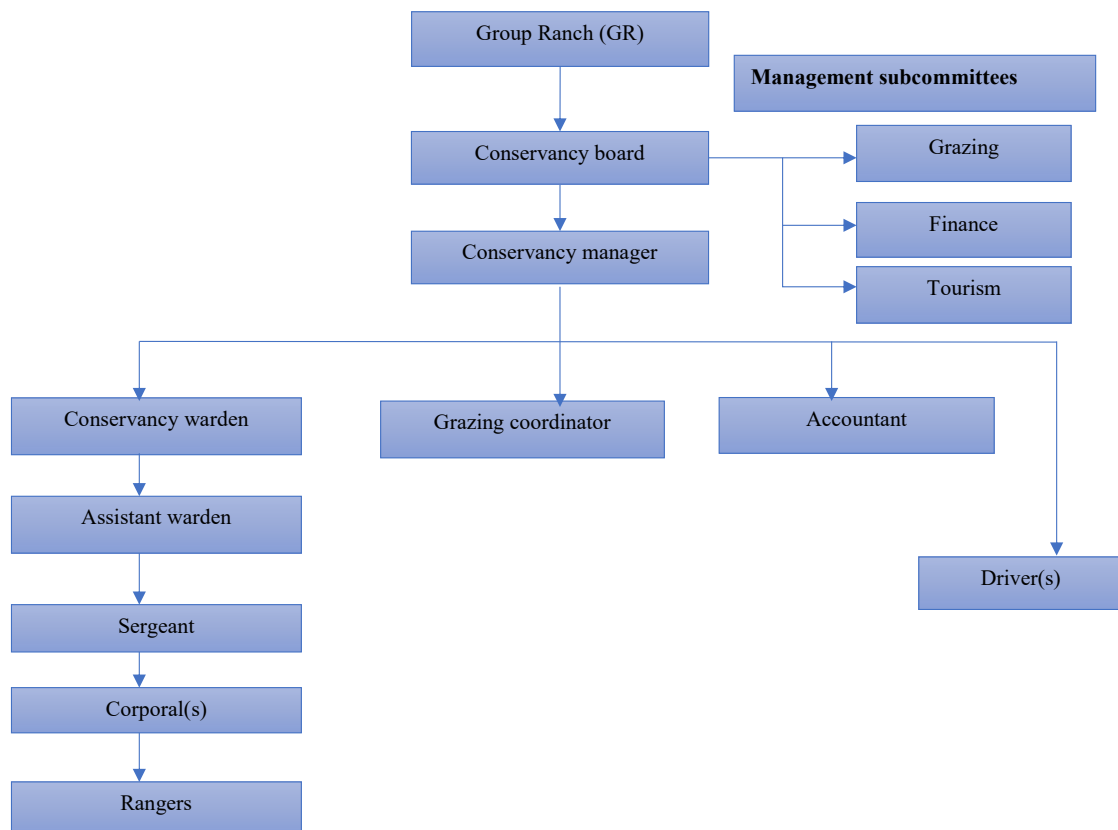


Fig. 2. A typical conservancy management structure



members have the right to participate in their respective conservancies' decision-making processes. Information regarding the activities of the conservancies is relayed to the members through each zone's elected trustee. Our study established other sources of information to the conservancy members to include conservancy board committee members, employees at the conservancies, village elders, community forums (barazas), and posters at shopping centres.

The mandate of the trustees is to relay information to the conservancy members. We established the existence of displeasure among some of the community members who faulted the trustees for failing to relay information at the appropriate time. Despite the existence of such sentiments, we observed the re-election of the same trustees during AGMs in some of the conservancies. We followed up on this observation during our FGDs, and the participants acknowledged the failure on their part when they did not exercise their voting rights wisely.

Analysis of the data gathered from individual household interviews shows that about 57.9% of the conservancy-member respondents believed that access to information in their respective conservancies was good. However, this finding contradicts the fact that our analysis shows only 6% of this category of respondents being aware of the amount of money their conservancies had accrued in the previous financial year. 66% of conservancy-member respondents were aware of their respective conservancy's or group ranch's constitution, out of which only 15.7% had been involved in its drafting process. These results underscore the aspect of information flow and access amongst the community, specifically the conservancy members, as a stakeholder in the conservation initiative.

Our study's respondents cited numerous ways in which they participate in their respective

conservancies' activities. These include grass seed harvesting/reseeding, invasive species clearance, bead-making, and herding in the buffer zones through grazing management plans. Other forms of participation include the creation of awareness amongst other community members about conservation and the selling of livestock through the NRT's LivestockWORKS program, reporting cases of injured wildlife when sighted and partaking in livestock production seminars. To further increase information on community participation beyond the conservancy but within the wildlife conservation initiative, we present the case of Ewaso Lions. Ewaso Lions is a non-profit organization that started in 2007 with the view of promoting community involvement in lion (and other wildlife species) conservation. It is headquartered at WCWC. The organization operates various programs such as the Warrior Watch that provides formal education and field exposure visits of the morans to other rangeland areas of Kenya. The warriors help in the basic conservancy patrol by tracking lions' movements and warning the community to avoid certain areas, thus helping in mitigating human-wildlife conflicts. The Mama Simba (women's) program conducts adult literacy and conservation training to women who help in the basic patrol of the conservancies during their daily chores and report lion sighting to the warriors. The women are also trained by Ewaso Lions to market their beaded lions' artworks. Other programs include Lions Kids and the Wazee (Elderly men) Forum that was dysfunctional at the time of our field research. We established that Ewaso Lions currently employs 23 morans (warriors), 19 women under Mama Simba, 3 scouts, 10 Wazee and 18 camp staff. Ewaso Lions' programs underscore the effort made in ensuring that the Samburu community is enlightened regarding wildlife resources on their communal land. The creation of market linkages for the by-products of wildlife conservation, such as beaded



lions' artworks, further heighten aspects of community access to markets spanning wildlife conservation in the study area.

**Equity in decision-making.** The conservancies are managed by boards constituted by members from the grazing, finance, and tourism sub-committees (Fig. 2). From fieldwork observations, we define the board as the conservancy's executive body that oversees resource management on behalf of the community. Board members are democratically elected by the community at AGMs and the team is typically constituted by an 'equitable' representation of residents living in the settlement zones, women, and youth. The board approximately consists of 12 elected members as well as ex-officio members from the government and conservation and development partners operating in the conservancy's area, and tour operators. Board officials hold office for terms of three years that are renewable. However, after serving for two consecutive terms, a board member becomes ineligible to vie again to give room for other people to serve. A few days before the AGM in KCWC, we would often come across groups of individuals (mostly men) strategizing on how they would vote in the election processes in their conservancies. Regarding participation, Gibbes and Keys (2010) identified various forms that include passive participation, participation in information transmission, participation by consultation, participation by material incentives, functional and interactive participation, and self-mobilization. AGMs are platforms upon which conservancy members can practice their democratic rights in electing officials, freely at will. We found some members to be motivated by monetary (such as a sum of USD 20 they receive for attending the meeting) and non-monetary incentives (such as gifts in form of printed shirts and traditional Samburu shukas). Each conservancy made efforts to ferry the community members from their zones to the AGM venue. If transportation would not

be available, only a handful of members would turn up to the meetings, rendering the whole process a sham. Conducting an AGM is costly. For instance, in 2018 NWCT incurred USD 21,980 for a successful AGM. Its counterpart, KCWC, spent USD 30,000 for an unsuccessful AGM marred with violence. This was brought about by the failure of KCWC's management to disclose its financial statements for 2017. This points to concern about the lack of accountability and transparency of the KCWC management. Furthermore, we established that in 2014 the previous board and management (chairman, accountant, and the manager) of KCWC colluded with one another in looting the conservancy of USD 120,000. These funds had been raised from the Rhino Charge event that occurs yearly in NRT-affiliated conservancies. The specific board members were sacked, though without any legal action being taken against them, after a 'special' AGM was called.

The Samburu community is represented by only a few individuals among the conservancies' board members. On the board only a few individuals, for instance, the conservancy manager and the chairman, would represent the conservancy during external interactions such as meetings at the NRT headquarters. This finding was reported as the norm in other conservancies as well. For instance, working with Sera Community Wildlife Conservancy in Samburu County, Cockerill (2018) terms this scenario as compartmentalized participation and favoured elitism. She argues that the typical conservancy structure was implemented by actors external to the sites of conservation governance who aimed to create institutions that could make conservation and development decisions that would gain local community acceptance. This argument is corroborated by one of our study's key informants who stated that: "Most of the conservancy boards in this area tend to favour the election of illiterate members and those who can easily be manipulated." Our key informant, a grazing coordinator in one of

the conservancies, has observed the ‘politics’ surrounding elections over the years during his tenure. He reported the sentiments he presented as holding of other conservancies as well.

Recognition and inclusion in strategic management decisions in conservancies is another issue we explore. During our fieldwork, we established that morans are a group in the Samburu community that feels excluded from most of the conservancies’ operations and decision-making processes. As stated by a group of morans during an interview: “Jan Craig of the NRT introduced the conservancy concept to our fathers and it is as if this idea will ‘die’ with our fathers as we are always excluded from conservancy matters.” Such sentiments from morans have been reported in other studies as well (e.g., by Glew *et al.*, 2010; Nthiga, 2014; Cockerill, 2018), placing the morans in conflict with other community members since they perceive conservancies

as bringing them limited benefits. Morans represent an issue because if they do not benefit from conservation, they become defiant and violent, at times. To counter this, we found the conservancies under study and in the area in general undertaking various initiatives to make the morans feel incorporated and part of the conservation initiative. One such initiative is the education of the age set of in-coming morans on the importance of conservation and peace (Fig. 3). The conservancies are also engaging the morans through grazing management sub-committees considering that they are the group that often herds livestock. The issue of the morans is one of the reasons that equity in conservation is so important.

Women are another social group that echoed sentiments of exclusion from decision-making processes during our fieldwork. The Maa-speaking community, of which the Samburu are a part, have a strong patriarchal culture in which women have little influence in decision-



**Fig. 3: In-coming morans training session at KCWC on the importance of peace.**

making processes such as natural resource management decisions (Galaty, 1982; Tarayia, 2004). Through our fieldwork, we confirm the existence of this disparity based on the election of board members in the four conservancies, in which a majority are men. Glew *et al.* (2010) document similar experiences with women in NWCT where women were excluded from decision-making processes and had a low number of representation on the board. The existence of heterogeneity in the community itself presents a myriad of challenges in the attainment of equity. Wegner (2016) refers to these challenges as participation filters or selective barriers that favour certain segments of a population over others in participating in PES schemes such as wildlife conservation in our case study. However, conservancies are making efforts to make women feel recognized and part of the wildlife conservation initiative. Besides the previously discussed Mama Simba of Ewaso Lions program, we found women to be also participating in bead-making activities in an NRT initiative project. Together with the morans, the women are offered loans by the NRT. The loans are used to fund various group activities. Such initiatives point to the effort conservation stakeholders are making to incorporate certain groups, particularly women and morans, in the conservation initiative. However, in the conceptualization of the conservancy-model in conservation, relevant stakeholders should have acknowledged and heavily invested in measures or programs that counter societal marginalization of these groups.

**Equity in outcomes.** For the conservancies under study as well as others under the NRT umbrella, we established that there exists a 60-40% benefit-sharing mechanism. 60% of the tourism income from tour operators is allocated to community projects. The other forty per cent is for conservation management activities. Community projects include the provision of health services and facilities,

bursaries, paying for kindergarten teachers' salaries, and water projects. This finding is corroborated by Gibbes and Keys (2010) who note that income from wildlife utilization is realized in the creation and implementation of community projects that take many forms, the popular being the construction of schools, health centres and boreholes. The NRT (2015) documented that the 60% share of revenue from tourism and livestock marketing is spent on student bursaries for secondary and tertiary students, water infrastructure, medical bills for conservancy members, support to schools that includes the construction of classrooms, support for teachers' salaries and school equipment. Through our fieldwork, we found that the Samburu community in general, including non-conservancy members, benefit from the provision of these projects. We established the discontent of some of the conservancy members who had no school-going children. This implies that such households were ineligible for bursary consideration. The discontented proportion of the society termed the arrangement unfair, coupled with other confounding reasons such as the inability of members in such households to secure employment opportunities from the conservation initiative. The allocation of bursaries is a major issue in conservation equity. Whose children receive bursaries and whose do not, is at the discretion of conservancy boards. Nthiga (2008) supports the idea of investing in education via wildlife conservation initiatives. She emphasizes that investing in education is vital to the success of conservation initiatives due to its general popularity, besides from enhancing employment creation and skills enhancement in the conservation arena.

The contractual agreements between conservancies and tour operators oblige the latter group to source 75% of their labour force from the Samburu community. We established that this clause is being upheld. Employment opportunities in the conservancies, however, are subjects to complaints from the community. For

instance, there were complaints that individuals from certain zones in the conservancies under study were not considered for positions. This shortcoming was acknowledged by the conservancies' management who hinted that the limited number of job slots available were unable to accommodate individuals from all zones. Furthermore, there exists nepotism, as highlighted by one of our key informants: "Nowadays people are selected based on ties to people in top management in the conservancy. "We as a community, for instance, loved the old times' conservancy scouts-recruitment process which used to be conducted in military-like style. Individuals would be subjected to a rigorous selection process that entailed running. At the end of the day those who were fit and merited it were selected for the job. Nowadays people just select their people!" This assertion indicates the harsh self-interested realities prevailing in the study area. We found a disparity between men and women regarding employment. Few women had been employed in the conservation initiative. The reasons provided for this observation pointed to the fact that women were considered too weak for certain jobs. For instance, poachers would not be 'scared' by the presence of women scouts patrolling. Also, the reasoning was made that women will require frequent maternity leaves. But our study's respondents reported that the marginalization of women is changing over time, as seen through the encouragement of more women to apply for job positions. Other benefits to the conservancy members include year-end payouts within the range of USD 15 to 20. In addition to this, we found households near the conservancies' headquarters and to shopping centres benefitted more due to their strategic location. Such households have access to better services provision such as security and general infrastructure, as well as access to potential employment, amongst other benefits.

The Northern Rangelands Trust (2015)

emphasizes conservancies as being run based on equality, democracy and fairness, transparency and accountability, equitable and non-discriminatory benefit-sharing, teamwork, mutual respect and cooperation, collective decision-making, and needs-based development. Under its umbrella, the NRT oversees a common-pool fund that every conservancy with an investor contributes to, from which funds are later redistributed amongst all conservancies. The redistribution is not done on an equitable basis but rather on a per conservancy contribution-basis. If equity were considered, MCWC would be benefitting more from this arrangement considering it currently lacks an investor. "This common pool fund, for example, I would say is like a dog and its puppies. Only those puppies that are aggressive get to breastfeed!" By making this assertion our key informant was pointing at the fact that despite contributing to the kitty, the conservancies must also prove that they need the money for specific development projects.

There exist contractual agreements between the conservancies studied and tour operators. Unfortunately, we could not establish how the minimum payable fee to the conservancies was determined, and whether these arrangements were equitable in terms of costs and benefits for investors and conservancies. Norton-Griffiths *et al.* (2008) acknowledged inequity in revenue sharing where tour operators and owners of the safari industry pocket a large proportion of tourist revenues at the expense of local communities. Lamers *et al.* (2015), while studying three tourism conservation enterprises, documented how communities wish to enhance transparency between them and the private investors. Communities proposed having people from their community work closely with investors, to monitor investors' activities. This proposition was rejected by the investors based on their demand for exclusive management control over the enterprise. In

our Samburu case study, we found KCWC to be the only conservancy that had a revenue collection unit both at the main gate and the airstrip; these controlled entry points allowed the conservancy to register the number of tourists or visitors going to Saruni lodge. This is a perfect example of an initiative taken by the conservancy to ensure accountability and transparency from their tour operator.

Both members and non-members of the conservancies freely utilize certain resources, such as wood-fuel, so long as the tree species are not categorized as endangered. Forage is another resource that is commonly shared between the two groups. The grazing committees in the conservancies oversee shrewd rangeland management by guiding forage utilization by herders during the wet and dry seasons. Access to the grazing resources particularly during the dry season is not equitable because some households have varying tropical livestock units while others have none. A research participant we interviewed, explained that: “Yes, we can graze a particular number of livestock species in particular spots during the dry season. But my household does not have many cattle as other people do, they therefore end up benefitting more unlike some of us!”. This assertion points to the dynamics prevalent regarding forage utilization. Most of the costs incurred by the Samburu community are in the form of livestock depredation that occurs when livestock herds forage in the rangelands traversing predator species’ areas, as well as when the predators attack livestock in holding crushes in homesteads. The opportunity costs of conserving wildlife are meant to be offset by the benefits accruing from the conservation initiative. Undoubtedly, wildlife yields benefit in wildlife-rich areas (Western, 1994) but this does not guarantee the local communities’ support for conservation as wildlife-related costs often outweigh the benefits, which are often monopolized by an elite minority (Homewood, 2002; Adams and Infield,

2003). Kenya’s Wildlife Management and Coordination Act of 2013 was operationalized to enhance the equitable distribution of benefits from wildlife conservation and the appropriate compensation of subsequent (RoK, 2013). We established that the government compensation scheme generally has been ineffective when it comes to compensating losses incurred by community members.

As a conclusion regarding the findings from our study, about 55.3% of the respondents believed that the distribution of costs and benefits in their respective conservancies were fair. The main reason for the respondents describing the distribution of costs and benefits as being fair is that the conservancy boards decided equitably on the utilization of funds generated. Other reasons include the fact that all zones are considered for job opportunities and equal grazing rights are allocated to community members. Equity is also judged based on equal year-end payouts to households and transparency in bursary allocation, and the ability of any person to call on conservancy vehicles for medical emergencies as well as the fair allocation of loans to community members. Of the respondents who had a different opinion on the distribution of costs and benefits, the reasons cited include the squandering of funds by their boards and the falsification of financial records given to the community (in other words, corruption by the top management); the absence of bursary schemes in their zone(s) and the failure of human-wildlife conflict victims to be compensated; the absence of merit in the recruitment of individuals for some job positions and influential or prominent individuals in the community being favoured over others; the payment for sand harvesting by the community although the resource exists freely on their land; and that some zones in the conservancies received more resources than others despite the level of income earned by conservancies, with little trickling down to the community.

**Table 1. Summary of the three equity tiers**

Equity in access	Equity in decision-making	Equity in outcomes
Available markets through LivestockWORKS and BeadWORKS programs of the NRT.	Conservancies are managed by boards that constitute members of grazing, finance, and tourism subcommittees.	There exists a 60-40% benefit-sharing mechanism regarding income earned by the conservancies. 60% is for community projects whereas 40% is for conservation management activities.
The conservancies operate on land registered by their respective group ranches, with registered members.	AGMs provide the conservancy members with a platform to democratically exercise their voting rights in electing their officials.	The community projects entail the provision of bursaries, water projects, weed control, rangeland rehabilitation, and medical facilitation.
Information relayed to the community through various channels such as zones' elected trustees, open-air forums, and village elders.	On recognition and inclusion in management decisions in the conservancies, morans and women are the social groups who echoed sentiments of exclusion and marginalization from the wildlife conservation initiative.	The investors in the conservancies are contractually obliged to hire 75% of their labour force from the Samburu community. This occurs on a permanent and seasonal basis in line with tourism seasonality.
Besides, accessing the wildlife conservation initiative through their respective conservancies, other organizations (conservancies' partners) offer the same opportunity to the Samburu community. These include Ewaso Lions, Grevy's Zebra Trust amongst others.		Employment in the conservancies critiqued by the community, for failing to observe the villages in the conservancies. Furthermore, manyattas located close to conservancies' headquarters, major roads and shopping centres had an edge over their counterparts in remote zones/villages of the conservancies.  Forage and other rangeland products such as wood-fuel utilized by both conservancy-and-non-members.  Livestock depredation and competition for forage resources are the main causes of human-wildlife conflicts. NWCT the only conservancy operating a livestock consolation fund that tries to enhance human tolerance to elephant conflicts.

## **CONCLUSION**

We aimed to document how recognitional, procedural and distributional aspects of equity are realized in wildlife conservation in the lowlands of Samburu County. Our study's findings show the existence of inequities in access, decision-making processes, and outcomes. This, we argue, is a result of what Jax *et al.* (2013) term as the contextual dimension of equity. This dimension entails equitable consideration of the broad social, governance, economic, and cultural contexts past and present (e.g., power dynamics, gender, and age) that influence a stakeholder's ability to gain recognition, participate in decision-making, and lobby for fair distribution. Furthermore, the situation prevailing in Samburu is exacerbated by nepotism, elitism, and historical marginalization. For instance, investments in communal projects, as manifested through health and education amenities and services, is a consequence of weak governance by the Kenyan government, which has historically and politically marginalized people of the Samburu region over the years. Such infrastructure and amenities would have already been in place if the national government had prioritized investments in the region. If this had been done, it could have been a different scenario from what our study reveals, where most of the conservation monetary benefits are invested in communal projects. It is worth noting that the Kenya's devolved government system (county governments) which has been operational since 2013 offers hope of addressing some of the marginalization. Sustainability is the central focus of the human-economy-environment interaction and the most important issues of intra-generational and intergenerational equity cannot be ignored (Venkatachalam, 2007). Thus, for the continued operationalization of wildlife conservation initiatives, stakeholders should pay greater attention to contextual dynamics. This will ensure that growth in local economies is coupled with decreased inequity. Mechanisms for enhancing transparency and

accountability for stakeholders involved should also not be overlooked. Overall, our case study portrays the equity implications of natural resources conservation, management, and use.

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## **STATEMENT OF NO-CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest in the paper.

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