

Distribution of the Benefits of Ngare Ndare Forest Trust and Il Ngwesi Group Ranch Ecotourism Enterprises in Kenya

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Abstract

Equity in distribution of the benefits of ecotourism is critical as many African communities have remained poor though they occupy areas that are rich in tourism resources. In Kenya, some studies show tourism has been beneficial to most locals and even pro-poor while others reveal different inequalities including elite capture. In light of this divided opinion, this study investigated the distribution of benefits of Ngare Ndare Forest Trust's and Il Ngwesi Group Ranch's ecotourism enterprises in Kenya. The study was a cross-sectional survey that applied mixed-methods approach with quantitative data being collected through face-to-face interviews and qualitative data collected using focus group discussions. Its results showed that the two community owned and operated enterprises yielded various benefits to locals but there was limited channelling of these to women, youth and the poor. The study demonstrates that amidst the degrowth movement's call for a shift from profit-driven development to community-centred approaches, there is need to address inequities that lie at the pinnacle of local participation in which communities own and operate tourism enterprises.

Keywords: Ecotourism; community based tourism; benefit sharing; equity; Kenya

Introduction

Ecotourism is a form of tourism that espouses the principles of conservation of the environment, involvement of the resident community, preservation of the local culture, sharing of economic benefits with hosts and empowerment of the disadvantaged and vulnerable (Cobbinah, 2015). Globally, ecotourism enterprises generate US\$ 100 billion every year (UNWTO & UNDP, 2017). Many of them are found within Africa's protected areas which according to Conservation Capital and Space for Giants (2019), number 8,400 and generate US\$ 48 billion from tourism every year. In Kenya, the growth of ecotourism is demonstrated by an increase in non-state protected areas from five in the 1970s to 163 with 142 lodges and camps in 2016 (Kenya Wildlife Conservancies Association [KWCA], 2016).

Participation of local communities is a key pillar of ecotourism and other forms of responsible tourism (Dangi 2016; Mgonja, Sirima, Backman & Backman, 2015; Renkert, 2019). Ecotourism gives poor rural communities an opportunity to improve their livelihoods as it takes place in marginal areas (Snyman, 2017; Wang, Cater & Low, 2016). Equity in

distribution of its benefits is however increasingly coming into question with the realization that many local communities in Africa are poor even though they occupy areas that are rich in tourism resources (Cobbinah, Amenuvor, Black & Pephrah, 2017). In Kenya, opinion on equity in benefit distribution is divided; while tourism has been shown to benefit majority of participating locals (Juma & Khademi-Vidra, 2019; Kihima & Musila 2019) and even pro-poor (Njoya & Seetaram, 2018), it exhibits various inequalities including elite capture (Lamers, van der Duim, Nthiga, van Wijk & Waterreus, 2015; Oduor, 2020). There is need for bold action by researchers to investigate the hard and uncomfortable issues of inequality and discrimination in the tourism industry (Jamal & Camargo, 2018).

This paper seeks to respond to this call using a study that investigated distribution of the benefits of Ngare Ndare Forest Trust's and Il Ngwesi Group Ranch's ecotourism enterprises in Kenya. The study's specific objectives were to establish the benefits that community members received from ecotourism and to analyse equity in their distribution to residents of different socio-demographic profiles. The study investigated equity from the perspective of host communities, a critical perspective as Cobbinah et al. (2017) have observed that previous research has relied on the viewpoints of governments, business operators and NGOs. A distinctive feature of this study was that the enterprises under investigation were fully owned and operated by local communities which implied that decisions on benefit distribution were made autonomously.

Literature review

Authentic participation of the local community is a critical ingredient of ecotourism and the success of enterprises depends on it (Moswete & Thapa, 2015; Wondirad, 2017). From ecotourism, communities receive economic benefits including income from provision of accommodation, transport, performances, tour guiding, food items and handicrafts (Safari, Gowele & Lwelamira, 2015). They also receive social benefits like enhanced preservation of their cultural and religious heritage (Abukhalifeh & Wondirad, 2019) and environmental benefits including building their sense of custodianship of natural resources (Zacarias & Loyola, 2017).

Within the Global South, tourism has been beneficial to many host communities. Local residents in Malaysia's Tioman Island and Sri Lanka's Arugam Bay have received significant economic, environmental and socio-cultural benefits from tourism (Abas & Hanafiah, 2013; Wijesundara & Wimalatana, 2016). In Nepal, ecotourism has contributed significantly to alleviation of rural poverty and remedying of gender inequalities (Anup, 2017). In Costa Rica's Osa Peninsula, persons working in the ecotourism industry earn almost double what accrues to those working elsewhere (Hunt, Durham, Driscoll & Honey, 2015). Community members neighbouring Ghana's Kakum National Park have benefited from tourism through training, market opportunities and social infrastructure (Mensah, 2017). There are however challenges with equity in benefit distribution across the entire region. Major benefits of Malaysia's homestay program accrue to wealthier and more educated residents (Chua Abdullah & Ramly, 2016). Women's engagement in tourism in India and Nepal is restricted to seasonal low-paying jobs that reinforce unfair traditional gender roles (Regmi & Walter, 2017). Within Mexico's Pueblos Magicos Program (PMP) where villages offer cultural tourism products, resident control is being lost to non-local North Americans (Clausen & Gyimóthy, 2016). In Ethiopia, benefits of ecotourism mainly accrue to private sector, the state and selected local elites (Wondirad, 2017; Wondirad & Ewnetu, 2019).

The business model of tourism enterprises affects benefit distribution. One type that is common in Africa entails state-managed protected areas creating opportunities for adjacent communities to benefit from tourism activities within them. For the community neighbouring

Ethiopia's Bale Mountains National Park (BMNP), such opportunities have provided incomes from employment, sales of foodstuffs and provision of guiding services (Wondirad & Ewnetu, 2019). These protected areas however benefit the state and conservation at the expense of adjacent communities which pay the price in terms of lost livelihood opportunities and increased wildlife deprecations (Mensah, 2017; Renkert, 2019). There are also joint ventures between private sector and local communities that succeed by leveraging on investors' business skills and community's resource endowments and have contributed significantly to poverty reduction in Botswana, Malawi, Namibia, South Africa, Zambia and Zimbabwe (Snyman, 2017). Communities that rely on them are however often at the mercy of private companies (Muganda, Sirima, Moshy & Mkumbo, 2012) which select the persons and projects they engage with, all resulting in uneven development and heightened inequality (McEwan, Mawdsley, Banks & Scheyvens, 2017). The model of Community Owned Tourism (COT) where by locals own and fully manage tourism ventures (Renkert, 2019) has potential to provide maximum returns to locals (Jones, Diggle & Thouless, 2015). The limited studies on this model show that it has significant benefits for locals but their distribution is either opaque (Mgonja et al., 2015) or unequal (Wang et al., 2016). Our study aimed to add to this literature by examining ecotourism enterprises where more conscientious benefit distribution practices are expected.

Theoretical framework

This study applied justice theory as Jamal and Camargo (2014) and Lee and Jamal (2008) have observed that there remains limited research focus on issues of equity in sustainable tourism despite the Brundtland Commission's call for this in 1987. There are four forms of governmental justice or fairness: procedural which is concerned with actor's voice in decision-making processes; informational which relates to sharing of processes and outcomes; interpersonal which involves the nature of interactions between the actors, and; distributive which covers perceived fairness in spread of outcomes (Kim, Thapa & Kim, 2018). The study examined distributive justice where Lee and Jamal (2008) have observed that more benefits of ecotourism should go to poorer members of the host community.

As posited by John Rawls, justice is fairness that stresses on equity rather than equality, with a principle of difference that calls for ensuring that those who are disadvantaged get the most goods, services and other benefits from development undertakings (Dangi, 2016; Jamal & Camargo, 2014). Our study investigated equity in distribution of benefits to community members of different socio-demographic profiles. Within distributive justice, a rewarder is assigned actual reward by an allocator while the observer undertakes a justice evaluation to determine how just or unjust this is (Jasso, Törnblom & Sabbagh, 2016). This study evaluated enterprises where the allocators were members of the community themselves which gave them autonomy in making decisions on reward distribution.

Study sites

As shown in Figure 1, the study was conducted in settlements from which members of Ngare Ndare Forest Trust (NNFT) and Il Ngwesi Group Ranch (INGR in this paper) are drawn. The two Kenyan rural communities are in Meru County and Laikipia County respectively. The study sites were purposively selected because they are established community owned and operated ecotourism enterprises in Kenya, a country that has been termed the elder of ecotourism in Africa (Honey, 2008). NNFT is a 600-household community group that manages the 5,554.3-hectare Ngare Ndare Forest under a concession (Kenya Forest Service [KFS] & Kenya Forest Working Group [KFWG], 2008; KFS, 2009). Its membership is drawn from the six forest-adjacent community settlements of Ethi, Kisima, Manyagalo, Mbuju, Ngare Ndare

and Subuiga in addition to private landholders (NNFT, 2004). It owns and operates a 450-meter long canopy walkway in addition to offering adventure activities of canyoning, rock climbing and camping within this forest. INGR on its part is an 8,675-hectare communally-owned land where the 2,000 Maasai household members have set aside a 16,000-acre Il Ngwesi Conservation Area exclusively for wildlife conservation and ecotourism activities (DeVeau & Marshall, 2008; INGR, 2005; INGR, 2010). Its members occupy the seven settlements of Ethi, Chumvi, Leparua, Nadungoro, Ngare Ndare, Ngere-Sirkon and Sanga (INGR, 2005). The group owns and manages the award winning Il Ngwesi Lodge with six cottages overlooking a waterhole in the Conservation Area.

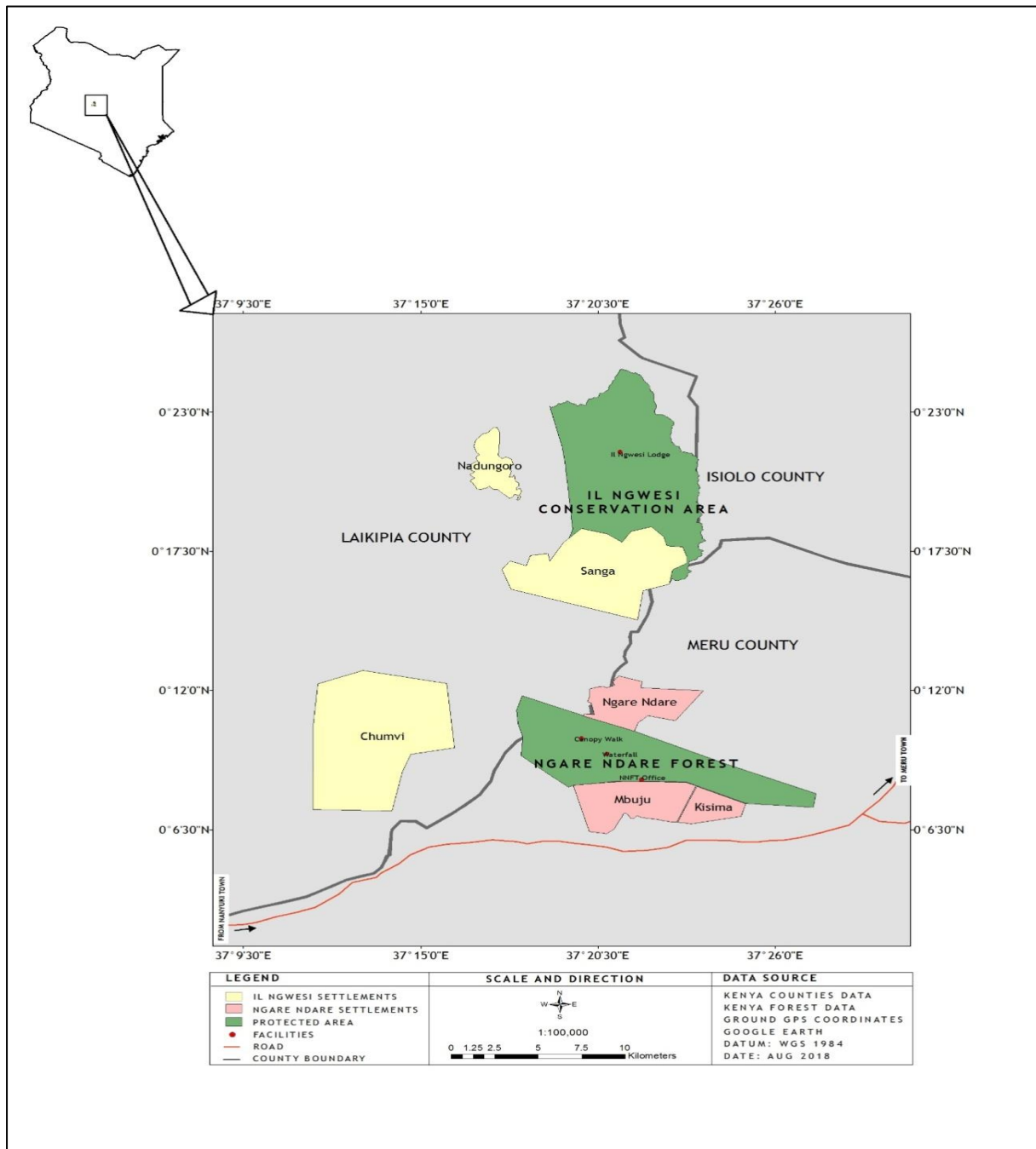


Figure 1: Map of the study sites showing the settlements that were sampled for NNFT and INGR

Materials and methods

The research was a cross-sectional study that applied mixed-methods approach with quantitative data being collected through a face-to-face survey and qualitative data using Focus Group Discussions (FGDs). Interviews are ideal where respondents can be accessed easily in their dwellings (Salant & Dillman, 1994) as was the case in this study and FGDs allow for verification of information within groups (Meinzen-Dick, DiGregorio & McCarthy, 2004) and were therefore considered a suitable complement. The study used the case study methodology that Cobbinah et al. (2017) have noted allows for in-depth investigation of the research phenomenon. It applied a concurrent nested design where, according to Alavi and Habek (2016) and Klassen, Creswell, Clark, Smith & Meissner (2012), quantitative and qualitative data are collected and analysed simultaneously and one approach embedded on to the other. Qualitative data deepens understanding of research concepts (Creswell, Klassen, Plano Clark & Smith, 2011) and was therefore nested on the study's quantitative findings in order to provide broader insights.

The survey was conducted using a structured interview schedule that was developed after review of literature on benefit distribution within the tourism industry. The schedule sought to establish respondents' socio-demographic status in terms of settlement, gender, age, education level, family size, land size and the number of livestock owned in addition to the different types of benefits that accrued to them or their immediate families from ecotourism. The survey used a sample of 556 respondents with 322 hailing from NNFT and 234 from INGR, proportionate samples derived using Krejcie and Morgan's (1970) formula for determination of sample size. To arrive at this sample, stratified random sampling was applied whereby three settlements were selected randomly from each study site and a proportionate number of persons identified from each by applying simple random sampling to a list of their member households. Consequently, the final sample from NNFT was drawn from the settlements of Kisima (60 respondents), Mbuju (184) and Ngare Ndare (78) while for INGR they hailed from Chumvi (89), Nadungoro (65) and Sanga (80).

The schedule was administered by five research assistants from the local area in the respondent's own home. Interviews were conducted in Kiswahili or the respondent's mother tongue and responses recorded in English. The exercise was preceded by pre-testing of the tool on 15 respondents in an adjacent rural community in addition to training of the research assistants by the principal researcher.

A total of 18 FGD sessions were conducted with separate meetings being held with youth, women and men in each of the six settlements where the survey instrument was administered. Participants were selected purposively with the guidance of the research assistants and the study strived to ensure every group was homogeneous in terms of gender, age-set and social status to enable every person to contribute openly in presence of the others. FGD sessions discussed the benefits that the community was receiving from ecotourism and fairness in their distribution. They were moderated by the principal researcher with the research assistants present taking notes and providing interpretation in cases where participants spoke in their mother tongue. All FGDs involved seven to nine informants and lasted between 45 and 84 minutes.

All data was collected between August 2016 and February 2017. Quantitative data was analysed using the Chi-square (X^2) test of independence to investigate the presence of associations between socio-demographic characteristics and benefits of ecotourism using an Alpha level of 0.05. Qualitative data from FGD transcriptions were investigated using thematic analysis techniques proposed by Sgier (2012) where a researcher seeks similarities or convergence in how respondents address the issues under inquiry.

Results

Socio-demographic characteristics of the sample

Table 1 gives a summary of the socio-demographic characteristics of respondents and two observations were made from these. Firstly, while 97% of respondents from NNFT owned private land, 50% of those from INGR did not, and while 87% of respondents from INGR had more than ten livestock, only 19% of those from NNFT were in this category. This showed that the sample was representative of the distinct livelihood patterns in the two study sites, with NNFT being a subsistent cultivation area while INGR is a nomadic pastoralist one. Secondly, 57% of the respondents from INGR had no formal education at all compared to only 5% from NNFT, and 32% of INGR respondents had seven or more dependants compared to 8% of NNFT. With Anyanwu (2014) and Geda, De Jong, Mwabu & Kimenyi (2001) recording that there is an association between household size and poverty levels with larger families being more likely to be poor than smaller ones, we inferred this to be an indicator of there being higher poverty levels in INGR as compared to NNFT. This was in line with poverty levels in the respective regions, with Laikipia County where INGR is having an overall poverty incidence of 45.9% while Meru County where NNFT is had one of 19.4% (Kenya National Bureau of Statistics, 2018).

Table 1: Socio-demographic characteristics of respondents

Socio-demographic factor	INGR		NNFT		Total	
	No.	%	No.	%	No.	%
<i>Gender:</i>						
Female	117	50	136	42.24	253	45.50
Male	117	50	186	57.76	303	54.50
<i>Age:</i>						
<20 years	4	1.71	0	0	4	0.72
20-29 years	59	25.21	39	12.11	98	17.63
30-39 years	69	29.49	94	29.19	163	29.32
40-49 years	42	17.95	104	32.30	146	26.26
50-59 years	31	13.25	51	15.84	82	14.75
60-69 years	20	8.55	26	8.07	46	8.27
≥ 70 years	9	3.85	8	2.48	17	3.06
<i>Education:</i>						
No formal education	134	57.26	16	4.97	150	26.98
Primary education	45	19.23	198	61.49	243	43.71
Secondary education	35	14.96	86	26.71	121	21.76
Tertiary education	14	5.98	20	6.21	34	6.12
Unstated	6	2.56	2	0.62	8	1.44
<i>Family size:</i>						
No dependant	23	9.83	25	7.76	48	8.63
1-3 persons	66	28.21	138	42.86	204	36.69
4-6 persons	71	30.34	126	39.13	197	35.43
7-9 persons	56	23.93	16	4.97	72	12.95
≥10 persons	18	7.69	10	3.11	28	5.04
<i>Land size:</i>						
No land	116	49.57	9	2.80	125	22.48
≤ 1 acre	80	34.19	107	33.23	187	33.63
>1-5 acres	38	16.24	201	62.42	239	42.99
>5 acres	0	0	5	1.55	5	0.90
<i>Livestock owned:</i>						
No livestock	4	1.71	64	19.88	68	12.23
1-10 livestock	27	11.54	196	60.87	223	40.11
11-100 livestock	182	77.78	62	19.25	244	43.88
>100 livestock	21	8.97	0	0	21	3.78

Benefits received from ecotourism

Table 2 shows the self-reported benefits that accrued to respondents from ecotourism. The study categorized benefits into those related to accessing natural resources in the ecotourism area like firewood, pasture and water; those that accrued directly to the individual like bursaries, training and loans, and; those that accrued to the wider community in form of improvements in the environment, roads, security among others. The table demonstrates that though more than half of the benefits were common to both study sites, INGR residents received more of those that accrued directly to individuals compared to NNFT.

Table 2: Self-reported benefits that respondents received from ecotourism

Benefits of ecotourism	INGR		NNFT		Total	
	No.	%	No.	%	No.	%
<i>Benefits related to access to natural resources:</i>						
Firewood	20	8.55 ^a	270	83.85	290	52.16
Pasture	76	32.48	83	25.78	159	28.60
Water	34	14.53	74	22.98	108	19.42
Herbs	0	0	12	3.73	12	2.16
Honey	1	0.43	5	1.55	6	1.08
Poles	0	0	5	1.55	5	0.90
Sand	2	0.85	0	0	2	0.36
Soil	0	0	2	0.62	2	0.36
Recreational features	0	0	2	0.62	2	0.36
<i>Benefits accruing to individuals:</i>						
Bursaries	133	56.84	8	2.48	141	25.36
Training	50	21.37	66	20.50	116	20.86
Loans	60	25.64	0	0	60	10.79
Employment	26	11.11	20	6.21	46	8.27
Market opportunities	24	10.26	6	1.86	30	5.40
Cash	14	5.98	1	0.31	15	2.70
Energy saving stoves	0	0	9	2.80	9	1.62
Land	5	2.14	0	0	5	0.90
<i>Benefits accruing to community:</i>						
Environment improvement	0	0	106	32.92	106	19.06
Roads improvement	3	1.28	87	27.02	90	16.19
Security improvement	33	14.10	8	2.48	41	7.37
Education facility improvement	4	1.71	10	3.11	14	2.52
Tree nurseries improvement	2	0.85	10	3.11	12	2.16
Water supply improvement	1	0.43	11	3.42	12	2.16
Health facility improvement	9	3.85	0	0	9	1.62
Sports facility improvement	0	0	2	0.62	2	0.36

^aPercentages exceed 100 as respondents could select more than one benefit.

Benefit distribution to persons with different socio-demographic profiles

Table 3 shows results of the Chi-square test for associations between socio-demographic characteristics and the benefits that respondents received from ecotourism. Any statistically significant association found was investigated to reveal the nature of the inequality. Settlement had a significant association with the benefit of firewood, loans, bursary, markets, security, water and pasture in INGR in addition to water, pasture, training and roads in NNFT. These benefits exhibited a wide range in the proportion of respondents who received them in different settlements; in INGR for instance, pasture was received by 48% of respondents from Sanga, 26% from Nadungoro and 24% from Chumvi while in NNFT it was accessed by 35% of those from Kisima, 32% from Ngare Ndare and 20% from Mbuju. These significant associations were therefore an indicator of regional inequality in benefit distribution. Some of the inequalities clearly arose from factors beyond the communities' control; in NNFT for example, the downstream location of Ngare Ndare settlement meant its residents were the only beneficiaries of the water supply project as it relied on a river flowing from Ngare Ndare Forest. Other inequalities, however, could be mitigated by management action. Such include training

that was received by 47% of the respondents from Ngare Ndare settlement, 37% from Kisima and 4% from Mbuju.

Within INGR, a higher proportion of respondents from Sanga settlement received firewood, water, pasture and security compared to the others. This showed that persons dwelling near the ecotourism area were benefiting more than those living farther away as Sanga borders the Conservation Area while Nadungoro and Chumvi lie 3 and 14km away respectively. FGDs from this study site revealed that community members were aware of this disparity as one informant explained:

If something happens here [in Nadungoro settlement] for example livestock is stolen, the local police would get here before the Group Ranch security team because they are far. If it happens to those living near the lodge, it would take a very short time for them to respond because they live there. So it might look like they are benefiting unduly but it's not that they are being favoured. It is just that the tree falls on those who are nearby. (INGR Male, FGD No. 15, September 20, 2016)

Gender had significant associations with the benefit of employment, loans, markets and bursary in INGR and firewood, water, pasture, roads and environmental improvement in NNFT. In INGR, though more males (19%) received employment than females (3%), more women benefitted from loans (females 44%, males 7%) and market opportunities (females 15%, males 6%). It emerged that in INGR, loans and markets for beaded products exclusively went to women. The men regarded this disparity positively as one of them observed:

When you see women getting loans, us men do not get loans. But when you see my wife getting a loan, it is like I have got it. So there is no problem with only women getting loans. We have agreed that let women benefit from loans because we men cannot make those beadworks. (INGR Male, FGD No. 11, September 9, 2016)

In NNFT, none of the benefits that had a significant association accrued directly to individuals and it was therefore likely that gender disparities did not emanate from an actual inequality in their distribution. Males have a wider environmental awareness than females (Kollmuss & Agyeman, 2002) which may be the reason why a higher proportion of men reported receiving roads (37% males, 14% females) and environmental improvement (males 40%, females 23%). Culturally-defined gender roles may have resulted in a higher proportion of women reporting the benefit of firewood (93% females, 77% males) and water (35% females, 15% males). These roles however elicited dissatisfaction with women reporting that firewood collection exposed them to the danger of injury from wild animals and health risks as one informant reported:

It is only us women who are allowed to collect firewood. Our backs have been broken! Let us say I have only boys, yes, and I have a problem with no one to collect firewood for me. My son cannot go into the forest to collect and bring me firewood...It is a problem. (NNFT Female, FGD No. 7, October 22, 2016).

Age did not have significant associations with most benefits apart from pasture and training in INGR and firewood and water in NNFT. The age category of 40-49 years had the highest proportion of recipients of pasture in INGR and firewood and water in NNFT. Since there were no age restrictions in accessing these benefits, this disparity could have emanated from this age-group seeking more of these particular benefits as it emerged that they had

comparatively larger households. Training in INGR went to more of the middle aged persons at 14% for those up to 29 years, 32% for 30-39 years, 31% for 40-49 years and 10% for those aged 50 years and above. During FGD sessions, INGR youth reported that they received limited benefits which were disproportional to the costs they incurred including being the ones who went out to defend the community whenever cattle raiding incidences occurred. One of them observed:

Nothing comes to the youth here... to people like these who have finished school and are here. Maybe they will go there [II Ngwesi Lodge] and do that attachment for maybe six months, but at the end of the tunnel you will come back home... you cannot get direct employment... So I don't see much benefit for the youth. (INGR Youth, FGD No. 13, September 20, 2016)

Education level had significant associations with training, bursary and employment in INGR in addition to employment and firewood in NNFT. More of those with higher levels of formal education received the benefits in all the above cases apart from firewood which was reported by 94% of those without formal education, 87% of those with primary education, 81% of the secondary and 55% of tertiary. Family size had no significant association with most benefits apart from bursaries in INGR where it rationally emerged that there were more recipients among those with more dependants (72% of those with 4-6 dependants) compared to those with few (36% of those with 1-3 dependants). Land size also had no significant association with the bulk of benefits aside from training in INGR and firewood in NNFT. With training being received by 19% of those with up to one acre of land compared to 34% of those with more than one acre and firewood by 77% of those who had up to one acre of land compared to 88% of those who held more, it was considered likely that the wealthier were benefiting more in both cases.

Livestock numbers similarly had no significant associations with majority of benefits aside from training in INGR and pasture in NNFT. Here also the wealthier were likely to be receiving more benefits with training being reported by 7% of those with up to ten livestock compared to 24% of those with more than ten and pasture by 19% of those who had up to ten livestock and 57% of those who had more than ten.

Table 3: Chi-square test results for socio-demographic factors and benefits of ecotourism

Benefit	INGR			NNFT		
	X ² statistic*	df	p-value	X ² statistic*	df	p-value
<i>Settlement and benefits of ecotourism:</i>						
Firewood	10.26	2	.006 ^a	2.02	2	.364
Loan	22.03	2	.000			
Bursary	20.37	2	.000			
Market	16.73	2	.000			
Security	24.67	2	.000			
Water	10.08	2	.006	300.56	2	.000
Pasture	12.62	2	.002	7.36	2	.025
Training	4.32	2	.115	75.83	2	.000
Road				70.30	2	.000
Employment	2.72	2	.257			
<i>Gender and benefits of ecotourism:</i>						
Employment	14.02	1	.000	.04	1	.834
Loan	43.39	1	.000			
Market	4.64	1	.031			
Bursary	3.92	1	.048			
Firewood	1.97	1	.161	13.45	1	.000
Water	.55	1	.458	17.83	1	.000
Pasture	2.81	1	.094	5.46	1	.019
Road				20.33	1	.000



Envtl. improvement				10.93	1	.001
Training	.41	1	.524	2.93	1	.087
Cash	1.22	1	.270			
Security	1.73	1	.189			
<i>Age and benefits of ecotourism:</i>						
Pasture	8.73	3	.033	1.22	3	.749
Training	13.33	3	.004	5.17	3	.160
Firewood				10.94	3	.012
Water	4.37	3	.225	8.03	3	.045
Loan	4.46	3	.216			
Bursary	6.70	3	.082			
Security	1.11	3	.774			
Road				1.36	3	.715
Envtl. improvement				6.04	3	.109
<i>Education and benefits of ecotourism:</i>						
Training	10.35	1	.001	1.29	1	.257
Bursary	4.17	1	.041			
Employment	5.01	1	.025	4.61	1	.032
Firewood				6.92	1	.009
Water	1.79	1	.182	2.41	1	.120
Pasture	.43	1	.512	.25	1	.617
Loan	3.21	1	.073			
Market	2.23	1	.135			
Security	.92	1	.338			
Road				.89	1	.347
Envtl. improvement				1.14	1	.286
<i>Family size and benefits of ecotourism:</i>						
Bursary	19.30	3	.000			
Pasture	2.31	3	.511	3.76	3	.288
Loan	6.72	3	.081			
Water				.78	3	.854
Training				6.74	3	.081
Road				.97	3	.809
<i>Land size and benefits of ecotourism:</i>						
Training	4.45	1	.035	.01	1	.949
Firewood				6.80	1	.009
Water	.06	1	.810	.03	1	.856
Pasture	.06	1	.803			
Loan	.09	1	.763			
Security	2.93	1	.087			
Bursary	3.74	1	.053			
Employment				3.33	1	.068
Road				.92	1	.339
<i>Livestock numbers and benefits of ecotourism:</i>						
Training	4.73	1	.030	.36	1	.550
Pasture	.001	1	.978	37.77	1	.000
Water				.06	1	.801
Loan	.74	1	.389			
Bursary	.06	1	.809			
Road				.06	1	.811
Envtl. improvement				.23	1	.632
*Tests containing any cell with an expected count of less than five excluded.						
*Significant <i>p</i> -values are shown in bold.						

Discussion

The study's first objective was to establish the benefits that community members received from ecotourism. The two study sites demonstrated the multiplicity of benefits that locals received from community owned and operated ecotourism enterprises categorized into those related to accessing natural resources in the ecotourism area, those that accrued directly to individuals and those that accrued to the wider community. Overall, the most popular benefits (firewood and pasture) were from the category of accessing natural resources in the ecotourism area. This demonstrates the significance of these benefits to communities and shows an advantage of COT enterprises over other models especially state-managed protected areas where Cobbinah et al. (2017) and Strickland-Munro and Moore (2013) have observed that locals are denied such access. The case of INGR further demonstrates that COT enterprises are able to channel

benefits to the individual compared to statutory protected areas that Mensah (2017) and Regmi and Walter (2017) have observed largely fail to do this. The study further revealed that some significant individual benefits only reached a small number of residents including employment (8%) and market opportunities (5%). In this aspect COT enterprises are no different from state-owned protected areas that Mensah (2017) has shown face a similar challenge of providing limited benefits to adjacent communities.

The second objective was to analyse equity in distribution of ecotourism benefits to residents of different socio-demographic profiles. The study showed that there were regional inequalities in benefit distribution, some explicitly due to advantages of topography and proximity to the ecotourism area and others pointing to absence of equity in distribution. While one of the enterprises had created opportunities for women as has been observed in other tourism businesses by Anup (2017), Mensah and Ernest (2013) and Oduor (2020); female participation continued to be hampered by culturally-defined gender roles in the other as has been noted in other cases by Regmi and Walter (2017) and Safari et al. (2015). Though generally no age group appeared to be discriminated against as far as benefit distribution was concerned, none of the sites showed evidence of channeling benefits like employment and training to the youth. There were cases of persons with higher levels of formal education receiving more benefits than those with lower ones in both study sites and it was noted that this largely applied to the benefits that accrue directly to individuals. On one hand, the absence of significant associations between most benefits and poverty indicators in terms of family size, land size and number of livestock owned suggested that benefits did not largely accrue to the wealthy only as has been observed in other tourism enterprises by Chua Abdullah and Ramly (2016), Mugizi, Ayorekire & Obua (2017) and Munanura, Backman, Hallo & Powell (2016). On the other hand, it showed that benefits were not being directed to the poorest within the two communities.

Distributive justice is concerned with achieving equity rather than equality by ensuring that deprived sections of the community receive proportionately more benefits than others (Dangi, 2016; Jamal & Camargo, 2014). The present study has found evidence of this in INGR whereby loans and market opportunities were channelled to women and bursaries to those with larger families. In all the other instances however, the study has found no evidence of more benefits being channelled to the youth, the poor or other disadvantaged community members in both study sites. Martin, Gross-Camp, Kebede, McGuire & Munyarukaza (2014) has demonstrated that some communities may prefer the egalitarian (equality) approach to benefit distribution for various reasons including avoiding conflicts with members who may get less. The failure to address the needs of the poor however clearly undermines the impact of such COT enterprises. It implies that they cease to be effective avenues of fighting poverty in marginal rural areas, a role that ecotourism enterprises have been reported to play by Anup (2017), Snyman (2017) and Wang et al. (2016).

Conclusion

The present study has demonstrated that COT-modelled ecotourism enterprises yield many benefits to local communities key among them being access to natural resources within protected areas that is often restricted in state-managed regimes. They however face a similar challenge to other models whereby some significant benefits reach only a limited number of members. The enterprises exhibit inequalities in distribution of benefits to their membership arising from factors that are both within and beyond their control. More unsettlingly, there is limited channelling of benefits to the poor and other disadvantaged groups within these enterprises.

As shown in our literature review, community participation in tourism has been studied widely. Many local residents in developing countries however remain poor even after years of participating in tourism either autonomously or with support from donors, governments, private-sector and other tourism stakeholders. This study has revealed that the absence of equity in benefit distribution is a significant underlying reason why this poverty has persisted. Researchers and other tourism players have laid emphasis on the nature and magnitude of benefits going to communities and given little attention to the specific persons to whom they accrue. Communities themselves have striven for equality rather than equity as their leadership seeks to avoid being perceived as partisan. In the end, though many tourism benefits have gone to local communities, there has been limited affirmative action to ensure that the poorest and other disadvantaged persons get more of them.

There is an ongoing clamour for the tourism industry to embrace what has been termed as equitable degrowth strategies that entail moving from the current profit-driven approach to one centred on the interests of local people. Indeed the highest level of community participation is when locals own, operate and control tourism enterprises. The present study has revealed that though such community-centric initiatives have their advantages, they have failed to achieve equity in benefit distribution. It has clearly emerged that the tourism industry should not be complacent after getting to the pinnacle of community participation.

From our study, it has emerged that there is need for further research into issues of equity especially within the other forms of tourism that involve local communities like cultural tourism and rural tourism. There is also need to explore the overall sustainability of COT enterprises including the environmental costs associated with the enhanced access to protected areas that they offer as has been revealed by our study. Finally, there is need for researchers to investigate inclusivity as far as other types of diversity are concerned including religious, gender orientation and people with disabilities.

This study has three main limitations. Firstly, it applied the case study approach which enables in-depth exploration of phenomena but implies that findings cannot be generalized as widely as may be desired. Secondly, the nature of data that was collected, mainly frequencies, put a limitation on the rigour with which it could be analyzed. Thirdly, the benefits discussed did not emanate from an impartial observation but consisted of what respondents reported as the study aimed to get the perspective of host communities that Cobbinah et al. (2017) have reported has been missing in tourism studies.

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