

People's Livelihoods and Conservation: Community-based Conservation in Maswa Game Reserve

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Abstract

After a long time of operation of the fortress conservation method in Wildlife Management Areas (WMAs) and Game Reserves, experts have debated whether Community Based Conservation (CBC) is a reality or just another fantasy. Because of the way they are governed in relation to their use values, WMAs and Game Reserves provide varied conservation experiences. According to this study, CBCs are never universally beneficial or unsuccessful, but rather rely on the context in which they are used. Despite the hurdles that this strategy faces in different areas, Maswa Game Reserve (MGR) has shown some success. This paper investigates the dynamics of CBC in Maswa Game Reserve using a historical perspective. It makes use of previously unseen historical records to highlight the dynamics of conservation politics in connection to local people's livelihood. We found that CBC was largely ineffective in MGR between the 1980s and the early 1990s, until it was seriously adopted in the mid-1990s and early 2010s, when it significantly enhanced people's participation in conservation efforts. Increased public participation in MGR reduced the depletion of wildlife resources, but this did not imply the exercise was without resentments. As a result, CBC is not a comprehensive refutation of fortress conservation's flaws, but rather another method of indicating that resource access, management, and use is a negotiated process defined by who receives what.

Key words: *community-based conservation, Maswa Game Reserve, conservation, rural livelihood, wildlife, rural development*

Introduction

Conservation of wildlife resources has a long history in the world, Africa and Tanzania in particular. In Africa, the historiography of conservation is normally linked with colonial enterprise after colonialists introduced fortress conservation approach. Under fortress conservation, the state and conservationists divided wildlife and human activity areas as two distinct environmental niches. Fortress conservation regarded the local people not only as enemies but also careless in the wildlife conservation efforts. This was the major grounding philosophy towards the introduction of fortress conservation in the colonies especially from the 1930s. In Tanzania, fortress conservation was introduced during the German period through the establishment of several protected areas coupled with several legislations such as the *Wildlife Preservation Ordinance* (Wildschutzverordnung) of 1896, *Jagdschutzverordnung* in of 1903, and *Jagdverordnung* in of 1908 (Wanitzek & Sippel, 1998, Nelson et al, 2007, Mkumbukwa, 2009, Majamba, 2018). Later in the 1920s, the British introduced the *Game Preservation Ordinance* of 1921; *Game Ordinance* of

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1940 and *Fauna Conservation Ordinance* of 1951 (Lissu, 2000, Mkumbukwa, 2008, Majamba, 2018). All these legislations separated wildlife environment from human activities. Such colonial legacy on conservation and resource management transcended into the postcolonial practice that goes on to date. Shortly after independence more protected areas were introduced while others were upgraded. Likewise, new legislations like the *Wildlife Conservation Act* of 1974 and *Wildlife Conservation Act* of 2009, which function until today, were enacted.

Despite being introduced in the colonial period and continuing into the postcolonial period, fortress conservation has realised less success because wildlife resources continued to deplete due to increase of conservation challenges associated to it (Brockington, 2002, Siurua, 2006). For instance, between 1975 and 1980, there was a near disappearance of black rhinos and elephants in the Serengeti Mara Ecosystem (SMES) due to increased poaching, bush fires, and encroachment.¹ This became common because the surrounding communities felt demotivated to take any care of protected areas. Consequently, from 1980s CBC encouraged local participation in conservation activities by engaging people living near protected areas. Under CBC, the local people surrounding protected areas are involved in conservation undertakings. Yet, CBC has not been as effective as it was anticipated and there are mixed feelings about it emanating from the communities in the protected areas (Goldman, 2003, Nelson et al, 2009). Such challenges facing the CBC have raised concerns on whether CBC is a panacea or just another myth like fortress conservation. Drawing from primary documentary and oral sources, this article argues that apart from the challenges that CBC faces it is still a worthwhile approach in the conservation of wildlife resources and would provide varying outcomes in different areas if the challenges were minimised.

Background to Maswa Game Reserve and Makao WMA

Maswa Game Reserve (MGR) and Makao WMA are protected areas found within the larger Serengeti Mara Ecosystem (SMES). Environmentally, these two share many ecological features including proximity, animal species, drainage and the human characteristics and activities. It is from such a reason that this article refers to the area forming both protected areas as MGR Ecosystem.

MGR consists of more than 2,200 sq. km characterised by a moderate temperature ranging from 18^oc to 31^oc annually and mono-modal rainfall ranging from 600mm to 1000mm that starts from October to May each season (Guyashi, 1988, Kideghesho & Mtoni, 2008). Environmentally, these characteristics make the area an important niche for both wildlife ecology and human activities. MGR borders three conserved areas in the broader SMES namely the Serengeti National Park in the eastern boundary, Ngorongoro Conservation Area (NCA) and Makao Wildlife Management Authority (WMA) in the southern boundary (See Figure 1). In the

¹ MNRT. (1986). *Toward a regional conservation strategy for the Serengeti*, report of a workshop held at Serengeti Wildlife Research Centre Soronera, Tanzania. (1986). p.5.

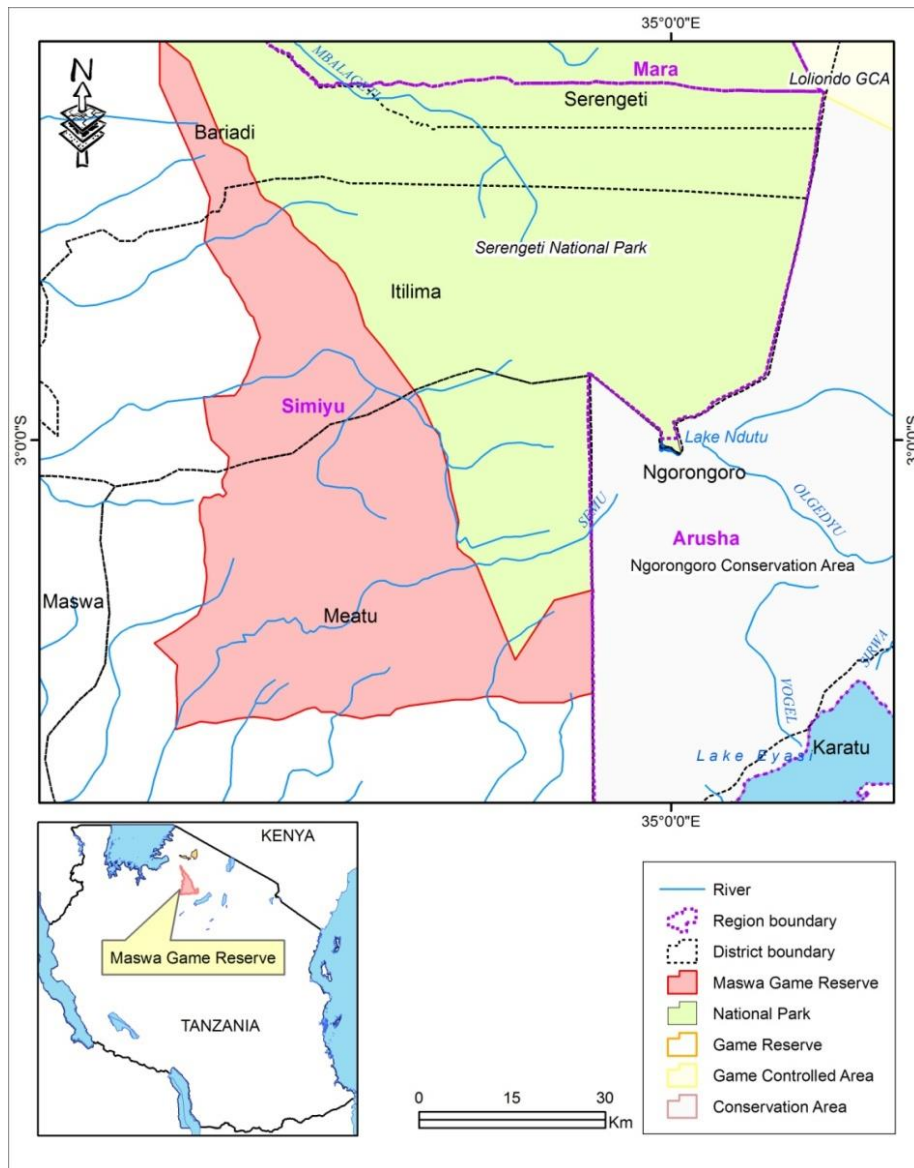
West, the Sukuma, Iramba, Kuria, Nyamwezi, Shashi, Rundi and the Hadzabe ethnic groups surround the reserve with the Sukuma being the dominant group. The dominance of the Sukuma in the area speaks a lot because it is an agro-pastoral group and competes for both the wildlife resources such as pasture and arable land. The aforementioned ethnic groups constitute the population around MGR whose livelihoods have been affected across different periods by wildlife conservation policies including CBC. Such population is sparsely distributed in 15 villages surrounding MGR in Meatu District which are the focus of this study. Such villages are Bulyandulu, Butuli, Mingong'wa, Mwajidalala, Buganza, Matale, Mwamashimba, Mbugayabhanya, Nyanza, Mwanyahina, Mwamhongo, Ngh'anga, Mwambegwa, Semu, and Mwagwila

Maswa Game Reserve received its name because it is situated within Maswa District. However, part of the district land was divided in 1973, 1987 and 2016 to form other districts namely Bariadi, Meatu and Itilima respectively, which are currently the only districts forming MGR. Meatu takes a larger part of the reserve as more than three quarter of MGR area extends over the district. MGR started as a Game Controlled Area in 1956 after the amendment of the *Fauna Conservation Ordinance Cap 302* of 1951 that called for the establishment of more protected areas.² It was until 1967 when Maswa Controlled Area was upgraded to a game reserve status following the government strategy to increase the number of protected areas in Tanzania for both conservation and protection purposes. Just like other game reserves, the major economic activity in the MGR from mid 1980s to the present has been hunting tourism whereby hunting companies have invested in the four hunting blocks of the reserve. Among the hunting companies, Tanzania Game Trackers Limited (TGTS) has been dominant in the area controlling two hunting blocks in the southern part of MGR and one block in the present Makao WMA.

Makao WMA on the other hand was established by the government in 2003 and officially gazetted in 2009, consisting of an area of 768.9 sq km (Meney, 2006, Evance, 2007). It lays just south of the MGR as shown in figure 1 below. It was formally an open area (Makao Open Area) which was set as a hunting block leased to Robin Hurt Safaris tourist hunting company (Hurt & Ravn, 2000). The WMA is formed by eight villages namely Makao, Sapa, Irambandogo, Jinamo/Mwanjoro, Mbushi, and Mwangudo and Mwabagimu.

² URT, Annual report of the Game Department 1955-1956, p.13; also see, TNA, 599/Ar.14/ 22: Correspondence General.

Figure 1: Map showing MGR Ecosystem



Source: Cartographic unit – University of Dar es Salaam (UDSM, 2019).

CBC and MGR Ecosystem from 1980s to Early 1990s

The history of CBC in the MGR is the history of CBC in the Serengeti Mara Ecosystem. This became so after the government introduced the Serengeti Regional Conservation Strategy (SRCS) in 1985 which was the first CBC strategy not only in the SMES but also in Tanzania as whole. SRCS was a conservation strategy that

involved all protected areas in the SMES including MGR itself. It was introduced following a special workshop held in December 1985 (Kayera & Overton, 1994). The workshop, apart from other issues, discussed the role and importance of the integrated strategy for wildlife conservation, as a result of which the government decided to introduce the SRCS. The SRCS was tasked to improve conservation in the SMES by first making it more integrative, that is, involving all protected areas in the SMES including the MGR. Secondly, it was to promote the livelihoods of the local people surrounding protected areas in the SMES so that they become part of a sustainable conservation effort of wildlife resources (Campbell et al., 1991). To implement these strategies, the SRCS was set to identify the problem, to raise awareness and to design implementation strategies and mechanisms.³

Notwithstanding being introduced as a strategy to foster CBC in the SMES, SRCS did not start by implementing viable outreach projects rather it started by implementing cropping and culling schemes which involved giving or selling wild meat to local communities at lower prices compared to domesticated meat. SMES like other conserved areas in Tanzania benefited from animal cropping whereby a large number of wild animals were cropped to promote community conservation.⁴ For instance, between 1994 and 1996, more than 2,476 wild animals were cropped in the whole country (Barnett, 1997) for the purpose although its effectiveness remains uncertain. In the SMES game cropping was more effective in communities surrounding Serengeti National Park, including the western Serengeti communities in Bunda and Serengeti districts, than other protected areas including MGR (Emerton & Mfunda, 1999). In such communities, cropping schemes were more organised whereby a special quota of wild animals was assigned to respective villages and cropped by the Wildlife Division (Ibid.). The Wildlife Division sold game meat and skin in local markets at prices determined by village councils which were normally set lower than domestic meat prices (Ibid.). The revenue collected from this practice was deposited into the Village Natural Resource Fund (VNRF) to support implementation of various village development projects. The same organised cropping scheme was practised in the Selous Game Reserve where the number of cropped animals was even bigger than that of the SNP as it benefited more than 41 villages and more than 70,000 people from revenues obtained from organised Village Wildlife Management Committees (VWMC) (Barnett, 1997, Seige, 1996).

MGR on the other hand had less organised cropping schemes during this period because tourist-hunting activities were not yet dominant. As a result, villagers did not fully benefit from cropping and culling schemes, something which made them to occasionally question the viability of the SRCS that did not effectively cover the whole region. Nevertheless, some game meat obtained from cropping schemes in

³ MNRT, *Toward a Regional Conservation*, p.6.

⁴ Game cropping is a seasonal and careful harvesting of the game in accordance with predetermined quotas

the Serengeti was provided to villagers bordering MGR.⁵ Later on, following serious implementation of tourist hunting activities in the MGR, hunting companies provided carcasses of game animals after trophies were taken. Generally, game meat obtained from such sources was provided freely or directly sold at cheap price to villagers surrounding MGR. For instance, by the 1980s, such meat was sold at the price of 0.83 USD when the price of domestic meat was 0.98 USD (Barnett, 1997). Since the amount of meat provided was small, it only benefited a few villagers. Much worse, unlike the western Serengeti communities, village councils in MGR were not fully involved in the setting of prices or utilization of the collected revenues. Yet, *Ujamaa* villages surrounding MGR were provided with the hunting quota from the Wildlife Division through Regional Administration offices.⁶ This quota consisted of animals to be hunted by resident hunters, visitors, and for the national and the ruling party's ceremonies.⁷ Party and national ceremonies included the ruling party's day (CCM day), the Independence Day and the Peasants' day (*Sabasaba*) for which 5 buffaloes and 10 wildebeest were provided to each district of the then Shinyanga Region.⁸ Such quota was later in July 1981 reduced from 15 to 10 animals. The reason for the reduction of the quota was that provision of the game meat to the local people did not curb poaching activities that continued to deplete wildlife resources. Poaching in the MGR and the whole SMES continued and responsible authorities decided to think about better methods of doing both animal cropping and protection of wild animals. The Director of Wildlife admitted this when he was quoted saying "the idea of spoon-feeding villagers with game meat as part of community-based conservation, did not, unfortunately, attain expected results" (Kideghesho, 2006, p. 26).

It is important to note that during the 1980s and early 1990s there was no serious implementation of CBC projects in MGR apart from selling game meat at cheap prices to few villagers surrounding the MGR and the provision of a special hunting quota to special groups. Revenues collected from selling game meat could not encourage village investments as village councils barely received any money as compared to the western Serengeti communities. Even if such nuances were not there, SRCS had already proved failure in the western Serengeti communities as its cropping schemes were not economically sustainable, and therefore people still considered illegal hunting more profitable than the little game meat they received from cropping schemes (Holmern, et al, 2002). Virtually, the resentment of people on the implementation of conservation activities in the MGR and other protected areas during this time continued to haunt conservation and protection efforts, as serious depletion of wildlife resources in MGR was uncontrolled.

⁵ Interviews on 12 Oct, 2018 at Mwangwina Village; and at Butuli village on 18th Oct, 2018.

⁶ TNA, 599/ GD.16/30/96: Hunting quotas general; also, interviews on 26th Oct, 2018 at Mwanhuzi Town, and on 26 Oct, 2018 at Mwandoya Village.

⁷ TNA, 599/GD.12/16 /31: Game cropping; also, interviews on 26thOct, 2018 at Mwandoya Village.

⁸ TNA, 599/ GD.16/30/96: Hunting quotas general.

CBC and MGR between the mid - 1990s and 2010s

This period witnessed a serious implementation of the CBC projects in the MGR following policy reforms in the wildlife sector in Tanzania. Within the SMES, the SRCS had reached its second phase that called for seriousness in the implementation of the CBC in the SMES. Moreover, the *Wildlife Policy* of 1998 that called for serious implementation of CBC in protected areas was introduced (URT, 1998, Mkumbukwa, 2008). In 2000, the government of Tanzania through its respective Ministry for Tourism introduced new hunting regulations that required hunting companies to implement CBC seriously and use hunting benefits for conservation purposes. This could be achieved by making sure that the local people surrounding hunting blocks benefited from hunting tourism and conservation activities in general. This was an important strategy towards people's involvement in the conservation of wildlife resources. It left tourist-hunting companies in the MGR and Makao WMA with no choice but to implement CBC.

In essence, two projects involving two big hunting companies were introduced and implemented from this period. These were the Cullman and Hurt Wildlife Project (CHWLP) introduced in 1990 under Robin Hurt Safaris (RHS) and Fredrick Conservation Fund (FCF) introduced in 1995 under Tanzania Game Trackers Safaris (TGTS)(Clarke, 2001).⁹ Since their establishment, such projects dealt with two main activities; one was to finance various community development projects in villages surrounding their hunting blocks in ways that villagers themselves decided, and second was assisting the Wildlife Division in combating poaching (Ibid). Funding for such projects was obtained from voluntary contributions from hunting clients willing to support conservation, and a 20% surcharge on clients' game fees (Ibid., Meney, 2006). Out of 23 villages supported by CHWLP in the country, 4 of them namely Makao, Sungi, Irambandogo and Mwangudo were in Makao Open Area. It should be noted that CHWLP only benefited villages surrounding Makao Open Area because the company under this project (RHS) was based in this area.¹⁰ On the contrary, the MGR villages in Meatu District were mostly supported by FCF as it was dominant in the reserve controlling three out of four hunting blocks, namely the North Maswa, Maswa Mbono, Maswa Kimali and Maswa Makao blocks.¹¹

Since their introduction, the CHWLP and FCF set aside a relatively huge amount of money for community development. Such amount of money increased from time to time and led to an increased number of established projects. For instance, in the 1990s, FCF invested in CBC projects an amount up to TShs. 8,110, 064/= and USD 14, 444 which seem to increase between 2013 and 2017 it used more than

⁹ See also, MGR/Flimsy File/ Taarifa ya Mipaka ya Maeneo ya Kuwindia ya 16/11/1995

¹⁰ However, among all villages, Makao village received benefits from both FCF and CHWLP because the village land was shared by both MGR and Makao Open Area

¹¹ MGR/Flimsy File/ Taarifa ya Mipaka ya Maeneo ya Kuwindia ya 16/11/1995; also, interview on 16thOctober, 2018.

TShs. 1,107,770,129/= for community support projects (See table 1 & 2).¹² Such increase was reflected also in the number of CBC projects invested in the respective villages as shown in tables below. This is not to mention support from other stakeholders in the SMES. For instance, between 2001 and 2005, TANAPA offered 97,000 USD and 67,000 USD to Meatu and Bariadi districts respectively for community development (Kideghesho, 2008). Such amount of money plus other CBC initiatives boosted various sectors including education, water, health and employment, which have trickledown effect to the community and conservation efforts.

Specifically, in the education sector, CBC projects assisted to improve schooling conditions as a large amount of money was dedicated towards education in Meatu District. Such projects envisaged to build new schools and to increase the number of classrooms in various villages including Makao, Sakasaka, Tindabuligi, and Sungu as detailed in tables 1&2 below. Such initiatives helped to increase the number of schools and classrooms in the district. When the district was established in 1987, it had 84 primary schools but with increased efforts from various stakeholders including hunting companies, such number increased to 111 by 2018.¹³ This did not only help to increase enrolment of students in the district but also reduced the number of students who previously absconded school because of long distance between their homes and schools.¹⁴ CBC projects have also donated a number of school equipment including desks, laboratory tools, and books to various schools to improve the quality of education in schools. For instance, FCF used Tshs. 49,764,944/= for such purpose in Makao, Sakasaka, Paji, Shushuni and Mwajidalala primary schools between 2013 and 2017 as shown in the tables below. CBC projects also provided study sponsorships to some O'level and A'level secondary school pupils especially those coming from poor families. Between 2013 and 2017, Tshs. 69, 693,300/= was used by FCF for such a purpose. Such sponsorships directly affected some families in the study area. Assistance in education somehow inculcated positive perception of the villagers towards conservation activities in the MGR Ecosystem which in turn increased their participation in such activities. This helped to reduce poaching and other illegal activities that endangered wildlife conservation.

CBC has also made some improvements on the provision of water and health services in Meatu District. To start with water services, it should first be noted that Meatu District is among the districts whose people are still facing a challenge of poor availability of clean and safe water until today. Since the colonial period, people have relied on water from constructed dams, and other natural sources like rivers and springs. In 1952 for example, the colonial government constructed some

¹² MGR, GD/SRT/GR/VOL.II/12

¹³ Meatu District Council Education Reports, (2015, 2016, 2017&2018), The Whole Village Project: Village Reports for Mbushi, Iramba Ndogo, Sapa, and Makao in Meatu District (Jan, 2011), pp.18-19

¹⁴ JMT. (1999). *Hali ya uchumi na maendeleo ya jamii mkoa wa Shinyanga*, p.82.

dams in five Sukumaland districts including Maswa but they were inadequate to cater for the needs.¹⁵ Nonetheless, by 1980s, most of them had dried up and others breached because of increased human activities.¹⁶ Accordingly, the introduction of CBC projects in the district in the mid - 1990s helped to reduce such challenge as they embarked on building wells and boreholes in several villages including Mwamhongo, Sakasaka and Nhangwa. Between 2013 and 2017 for instance, Tshs. 55,371,000/= was used by FCF in various water projects in several villages including Sakasaka and Makao (see table 2). Just like education, water projects also helped to reduce the resentment of the villagers towards conservation of wildlife resources in the SMES.

In the health sector as well, several projects have been implemented but not to a large extent compared to education and water projects. The CBC projects helped to construct health centres and dispensaries such as Butuli Village Dispensary where they also provided health equipment costing a total of TShs. 53,352,600/= . This brought health services closer to villagers as one villager said, 'before this dispensary was constructed, we had to travel to the next village (Sakasaka) which is more than 7 kilometres for medical care but now we are happy that we do not have to go that far'.¹⁷ Other efforts involved provision of health equipment to several dispensaries including Mwajidalala costing about Tshs. 1,779,000/= (See table 2). CBC projects also facilitated health awareness programs in Meatu District. For example, environmental education was frequently provided to villagers in order to improve sanitation and environmental awareness in general. Between 2013 and 2017 Tshs. 26, 626,667/= was used by FCF for such purposes. Although the contribution of the CBC projects was small in the health sector, it reduced some conservation challenges in the MGR as villagers were motivated.

The presence of CBC projects under tourist hunting companies has been a source of direct and indirect employment to some villagers. Nevertheless, the more permanent employments were available in Makao Open Area/WMA than in MGR. In Makao Open Area, since the beginning of the CHWLP in 1990, some villagers from each village were hired to work as Village Game Scouts (VGSs) who would assist the Wildlife Division game officers to combat poaching (Clarke, 2001). Although they were on casual employment terms, they almost worked on permanent basis. Since poaching was more rampant in MGR, more seriousness on employing VGSs was paid to this area than others (Ibid.). In Burko block for instance, a year or so would pass before villagers were called to supply VGSs. VGSs received a relatively good amount of money as they were paid TShs.1000/= when on patrol and Tshs. 800/= a day when in camp. Around MGR, permanent employments were very few and unreliable as they were only given during the

¹⁵ Proceedings of the ninth meeting of Lake Province Council 13th – 17th November, 1951. University of Dar es Salaam.

¹⁶ Meatu District Council Education Reports, (2015, 2016,2017&2018).

¹⁷ Interview at Butuli Village on 23rd Oct, 2018

1980s and before to people with special skills like driving in order to cover deficiency of Wildlife Division game officers.¹⁸ By 2010s, such employments were no longer available as there were relatively many game officers. The more reliable employments in MGR just like many other Game Reserves and Game Controlled Areas in Tanzania were the temporary employments available during hunting seasons from July to December each year. Such employments including preparing of hunting camps for the new hunting season, where, by the 2010s, such casual labourers were paid TShs. 5000/= per day. Hunting camps also employed women to perform various camp duties including cooking and washing clothes for tourist hunters. Similarly, entrepreneurs especially women took advantage of the hunting season to sell various items including vegetables to the tourist hotels located in the reserve (Senyael, 2015).¹⁹ Other indirect employments were revealed through the formation of the Village Community Banks (VICOBA) whereby organised groups of youths, women and others were given money, equipment and knowledge through special seminars to enabled them to invest in agricultural and other entrepreneurial activities as shown in table 2. Though they were few, such direct and indirect employments reduced people's sentiments towards conservation activities in the MGR.

Table 1: FCF & CHWLP Support in MGR and Makao OA, 1995 – 2000

Company	Type of Support	Total Value
CHWLP	-Primary school and pumps, dispensary, milling machine, repairing village tractor, support to religious activities at Makao-Meatu -Primary school and maize mill at Irambandogo -Primary school at Mwangudo -a tractor to Makao and Land Rover to DGO Meatu	USD 130,529
FCF	-Primary school at Sungu-Meatu -Primary school & desks at Sakasaka -Toyota Pickup Hilux donated at Sakasaka B village	USD 14, 444 Tshs 8, 110, 064

Source: MGR General Management Plan, 2002

Table 2: FCF Support to MGR and Makao WMA Villages, 2013 to 2017

NAME OF THE PROJECT AND DONATIONS	AMOUNT (TSH)
<u>2013</u>	
Continuation of Buturi Dispensary Construction	23,000,000
Meatu environmental Film Screening	2,200,000
Meatu environmental education	4,060,000
Students' sponsorship	960,000
Bariadi maintenance of police vehicle	3,000,000
Contribution to Uhuru Torch	300,000
Support to Mwangudo football team with equipment	985,000

¹⁸ TNA, 599/ Ar.14/240: General correspondence

¹⁹ Interview at Sakasaka on 19th Oct, 2018; and on 17th Oct, 2018 at Mang'wina Village

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Playground for Mwangudo Primary School	12,000,000
Environmental education	8,500,000
School books to Makao school	1,500,000
Presidential exhibition in Bariadi	11,000,000
Support to Meatu District on HIV Aids awareness	4,440,000
Contribution towards Meatu Choir	350,000
Makao Community Centre	259,105,363
Contribution to Uhuru Torch	300,000
Contribution towards construction of Makao Police Station	160,000,000
3 Land Rovers donated to Simiyu Region Police department.	120,000,000
Mwangudo Village boundary demarcation	1,800,000
Sub-total	613, 020,363
<u>2014</u>	
Continuation of Buturi Dispensary Construction	27,381,600
Sakasaka and Buturi Shallow wells and Pumps	7,200,000
Meatu Uhuru Torch contribution	300,000
Higher learning student's sponsorship	4,800,000
Environmental Education and film screening	2,200,000
Makao primary School cabinets	1,630,000
Lukale borehole	12,652,000
Mwangudo borehole	5,000,000
Mwangudo village for public emergence vehicle	6,450,000
Sub-total	67, 613, 600
<u>2015</u>	
Handed over Buturi Dispensary with equipment	2,971,000
Sakasaka and Paji schools' laboratory equipment donation	20,000,000
Higher education students' sponsorship	9,300,000
O'level student's sponsorship	7,199,900
Environmental film show	2,200,000
Contribution towards World Food day	5,000,000
Repair of Police vehicle	2,550,000
Construction and completion of Buturi toilet block	3,929,000
Contribution Uhuru Torch	300,000
Makao water tank at primary school	2,100,000
Makao water project- well	3,536,000
Renovations at Makao Primary School playground	2,585,100
Meatu Uhuru Torch contribution	1,500,000
Students sponsorship High school	1,147,000
Makao Secondary School water tank	2,100,000
Completion of roofing of Mwabayanda B School	8,000,000
Sub-total	72, 318, 000
<u>2016</u>	
Vicoba training and set up at Sakasaka, Ming'ongwa and Buturi, Mwasengela, Nghanga	16,150,260
Sapa Beekeeping	9,160,000
Digging of two shallow wells in Nhangwa & Mwamhongo villages	14,160,000
Environmental education and awareness programme in 4 villages	6,466,667
Mwajidalala village office completion (Mwanyahina ward)	20,557,500

Establishing and training of new tree nurseries in 6 schools Makao sec and Primary	7,551,000
Education clean-up day in Makao (Mwangudo ward)	1,000,000
Pump for borehole used by AP at Mongomakima (Sakasaka ward)	2,029,000
Emanuel Kombe student sponsorship	839,400
26 school desks to Shushuni school in Mbushi village	415,000
Vicoba assistance	9,280,000
Students sponsorship Abdalah Mohamed	2,247,000
Mbuyuni Primary School completion of 2 classes, 1 office, 90 desks	40,191,000
Mwajidalala construction of village office 75%	15,418,125
Nhungulu Primary School desks, chairs, books, shelves	1,986,000
Tailoring group Meatu furniture 75%	724,000
Equipment (sewing machines)	3,152,000
Establishing and training of 6 new groups	7,551,000
Sub-total	158,827,952
<u>2017/2018.</u>	
a) Projects	
Borehole and hand pump for Mwandoya Secondary School	6,004,000
Construction of Mwanhuzi kids play ground to Meatu township	13,508,000
Contribution towards Mwajidalala Dispensary	1,779,000
Vicoba group Maendeleo Nhangwa village, Mwasengela ward purchase of modern maize crops seeds	3,600,000
Vicoba group "Umoja ni Nguvu" Mwabulutago village, purchase of 6 sewing machines and materials	5,000,000
Vicoba group "Tushikamane" Mwabulutago village open restaurant and plant maize	5,000,000
Vicoba group "Swala" Sakasaka village for maize farm	4,000,000
Vicoba group "Nyati" at Sakasaka village for cotton farming	5,000,000
Vicoba group "Simba" Sakasaka village 10 acres maize farming	6,830,000
Vicoba group "Zebra" Sakasaka village, for farming support	4,000,000
Vicoba group "Faru" from Sakasaka village maize purchase business support	5,500,000
Vicoba group "Tembo" from Sakasaka purchase of 200 bags of cement for maize store building	3,080,000
Setting up of three new Vicoba groups at Mwasengela ward with 3 vicoba boxes and materials	953,100
Vicoba training to the 10 groups of Sakasaka and Mwasengela wards	2,500,000
Repair of School children's playground at Makao and Mwangudo P/S	1,490,000
Transport costs to supplier Mr. Kaliba G.S. for sending all supplies to the Vicoba groups	1,100,000
Construction of pipeline to connect two Sakasaka village locations (Sabato and Bondeni) from the main water tank.	2,915,000
Beekeeping training expenses Meatu two weeks training	6,000,000
Pump for borehole at Mongomakima village	590,000
b) Donations	
Donation of School books to Makao S/S and P/S	3,897,250
Donation of 25 school desks to Makao secondary and Primary	3,750,000
Donation of sports equipment to Makao Primary School	2,680,000
Donation of Science kit to Makao Primary school	680,000

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Donation of computer, printer, and solar equipment at Makao P/S	5,717,194
Donation of inverter and installation fees to Makao Primary School	1,483,000
Donation of requested books for Makao Primary School	4,542,500
Donation of School Band instruments to Makao Primary School	1,350,000
Donation of two cupboards to Makao Primary School	814,000
Donation of five Desktop Computers to St. Clare computer training centre at Meatu Catholic Church	7,434,000
Donation of football jerseys to Utumishi Football Club Meatu	500,000
Donation of recording expenses to Mwangudo classic band, a Youth Music band from Mwangudo	200,000
Donation of Meatu Mwenge T-shirts	4,944,200
Donation of 3000 bags of cement to Meatu district Council	48,000,000
Donation of 1,000 pieces of Iron sheets to Meatu District.	25,380,000
Donation of one used laptop to DGO office	1,300,000
Subtotal	191, 521, 214
GRAND TOTAL FOR FIVE YEARS	1, 107,770,129

Source: FCS Community Development Officer Reports

Tourist Hunting Returns and CBC in MGR and Makao WMA

In order to ensure that the benefits of tourism went to local people, the government through the permanent secretary for the Ministry of Tourism and Natural Resources introduced a special system in 1995 whereby 25% of game fees collected by the Wildlife Division from sports hunting activities was given back to villages bordering hunting blocks through their respective District Councils for purposes of community development (Revelian, 2016).²⁰ From such collection, 60% was distributed to all villages adjacent to hunting blocks in the respective districts for development projects while the remaining 40% was retained in the District Game Officer's (DGO) office for conservation activities.²¹ Hunting companies in the MGR have increased the amount of money they contribute for such purposes over time. Statistics indicate that between 1995 and 2000, Meatu District Council (MDC) received USD 200,705.75. (See table 3). This amount increased in later years as tourist-hunting business grew and thus accumulated more money. For instance, between 2011 and 2018, almost TShs. 300, 000,000/= was provided by the Wildlife Division to Meatu District Council for villages bordering MGR as shown in table 4.

Table 3: 25% Tourist Hunting Returns to MGR Villages from 1995/96 to 1999/2000

	1995/96	1996/97	1997/98	1998/99	1999/2000	TOTAL
Meatu	36,750.00	54,284.00	40,775.00	36,300.50	32,576.25	200,705.75

Source: Compiled from URT, 1999-2002

²⁰ Also see, Taarifa Fupi Kuhusu Mradi wa Maswa Iliyowasilishwa kwa Mh. Mohamed A. Babu, Mkuu wa Mkoa wa Shinyanga, MGR, File.No.GD/MGR/TH/113: Tourist Hunting.

²¹ Utaratibu Mpya wa Mgao wa Asilimia 25 ya Fedha Zitokanazo na Uwindaji wa Kitalii, MDC, File No. MDC, File No.HWM/G1/1 Vol.II/60: Correspondence General.

Table 4: 25% Tourist Hunting Returns to Villages around MGR

YEAR	AMOUNT (TSHs)
2011	62,685,211.95
2012	75,244,239.98
2013	27,549,934.97
2014	-
2015	40,017,158.30
2016	28,759,504.85
2017	40,561,081.53
2018	23,494,460.97
TOTAL	298,311,592.5

Source: Compiled from District Game Officer's Reports

The provision of such amounts of money has proved to be more effective with the introduction of the 40% given to the DGOs office. This money has been a useful source of fund for conservation activities like, among others, buying of DGOs office equipment and conducting seminars and workshops that helped to build conservation awareness to the local people surrounding MGR and Makao Open Area. These efforts in general terms, reduced people's resentments towards conservation activities.

The biggest challenge in the implementation of this initiative lies on the remaining 60 per cent which should be available for villages in adjacent areas. In many protected areas, studies have proved that such money did not reach respective villages accordingly. A study by Revelian for instance revealed that Miguruwe, Msolwa and Ngarambe villages bordering Selous Game Reserve did not receive such money between 2005 and 2013 (Ravelian, 2016). In MGR, this was a huge challenge to villages bordering it than those forming Makao WMA. Since money was channelled in the district council's accounts, it was normally redirected into other businesses while targeted villages received peanut or sometimes nothing.

Field data from a sample of two villages bordering MGR namely Sakasaka B and Mwajidalala indicate that of all the money distributed between 2011 and 2018 (as seen in table 4 above) the two villages received the money only in three instalments as indicated in table 5 below. Additionally, even the money received by the targeted villages did not match with the total amount sent by the Wildlife Division to Maswa District Council. In 2016 for instance, a total of TShs. 28,759,504.85 was sent to Maswa District Council where 15 villages of the Maswa Game Reserve expected to receive more than TShs. 1,200,000/= each. Surprisingly, they received almost half the amount which was TShs. 500,000/= as shown in tables 4 above and 5 below.

Table 5: 25% Tourist Hunting Returns at Sakasaka & Mwajidalala Villages 2011-2018

	SAKASAKA B	MWAJIDALALA
2011	-	-
2012	52 bags of cement	30 bags of cement
2013	TShs. 800,000/=	TShs. 3,000,000/=
2014	-	-
2015	-	-
2016	TShs. 500,000/=	TShs. 500,000/=
2017	-	-
2018	-	-

Source: Compiled from Field data, 2018

Local articulations in the MGR indicate that for them to benefit more from CBC initiatives, the money should be deposited in village bank accounts straight away.²² Another complaint was on the level of transparency and participation of villagers in the whole process of distribution of that money as one villager said, “these people (District Council Officials) take our money and yet they do not inform us, after all, we are not even aware of the amount of money which is supposed to be given to us”.²³ It was admitted by many villagers that the small amount of money received was in most cases directed to the village projects after being decided by the village governments which consisted of village representatives. Lack of transparency was not only uncommon in game reserves like Maswa but also in other protected areas including national parks. For example, villagers in Serengeti District bordering SNP complained that their leaders did not disclose to them the actual number of corrugated iron sheets donated by the TANAPA (Keraryo, 2010).

The aforementioned complains on the distribution of the hunting benefit returns were rarely seen in the WMAs. In this, WMA villagers enjoyed direct and indirect benefits from the CBC projects. As far as the hunting returns were concerned, the framework of the WMAs themselves is good compared to game reserves. First of all, money is collected by the WMA villages themselves through Authorised Association (AA)²⁴ that later distribute it according to revenue sharing breakdown. The breakdown requires 35% of such collection to be handed over to the Wildlife Division and the remaining 65 % to be left with the respective WMA. This was the case for villages bordering Makao WMA that enormously benefited from tourist hunting activities by receiving more returns than their neighbouring villages in the MGR. For instance, when 14 villages of the MGR received only 500,000/= from tourist hunting returns in 2016, a meagre dividend of a total collection of TShs. 28, 000,000/= (see table 4 above), hunting activities in Makao WMA in the same period generated a total of TShs. 153,000,000/= (see table 6 below) from which,

²² Interview at Sakasaka on 19th Oct, 2018 and on 17th Oct, 2018 at Mang'wina Village

²³ Interview on 28th Oct, 2018 at Sakasaka Village

²⁴ Authorised Associations (AAs) were special committees in charge of the respective WMAs formed by members representing villages forming WMAs

Makao WMA retained Tshs. 99,450,000/= for village development and conservation purposes. Despite such distribution, villages bordering Makao WMA still benefited much because the District Council did not spend such money. This substantiates why villages bordering Makao WMA have until recently made progress in development projects than those bordering the MGR as shown above.

Table 6: Makao WMA Annual Returns, 2011/12-2016/17

Year	Amount (TShs)
2011/2012	28,251,114
2012/2013	60,000,000
2013/2014	25,000,000 (Annual Payment for two months only)
2014/2015	150,000,000
2016/2017	153,000,000

Source: Revocatus Meney (2016, p.32)

Human Wildlife interaction and CBC in MGR Ecosystem

The interaction between villagers living close to protected areas and wild animals has affected the livelihoods of the former to a great deal. Wild animals (vermin) like elephants, have caused a considerable number of deaths and injuries to human beings and domestic animals as well as crop damages to villages surrounding many protected areas in Tanzania. Approximately, vermin take the lives of Tanzanians in numbers ranging from 200 to 500 a year (Kideghesho, 2008, Beale et al, 2013). These deaths are a threatening reality to the people living adjacent to conserved areas. Wildlife conservation leaves behind serious marks in people's lives that cannot be easily compensated by the gains accrued from it. Historically, during the implementation of villagization policy in the 1970s, vermin were enormously controlled in Tanzania as the operation involved taking people living near protected areas and settling them in newly established *Ujamaa* villages located far from protected areas (Mwapachu, 1976; Lawi, 2007; Paresso, 2018). In some *Ujamaa* villages such as Mwanyahinathere were minimal events caused by human-wildlife interactions but in other *Ujamaa* villages like Longaloniga, Sakasaka, Tindabuligi and Nyanza incidents of crop damage and deaths caused by human wildlife interactions were common.²⁵

The problems resulting from human and wildlife interaction increased by the end of the 1980s and 1990s following the disintegration of the *Ujamaa* villages around protected areas as people encroached protected areas in search for productive land (Paresso, 2018). Another reason was the launching of the *Operation Uhai* in 1989, which was a special operation conducted by the armed forces to control poaching in Tanzania (Kideghesho, 2005). From this operation, the number of elephants

increased and consequently, the rate of crop damages in protected areas including MGR itself became a common practice (See figure 2 below).

In the 2010s, the situation became increasingly worse as the number of elephants increased considerably from about 1,718 in 2006 to 6,087 in 2014. This drastic increase witnessed a huge destruction of crops, deaths and injuries of people and their livestock around both the MGR and Makao WMA. Elephants destroyed about 113 hectares of various crops in Nhangá, Matale, Mwamhongo and Bulyandulu villages in Meatu District.²⁶ In 2015, there was no evaluation done but it was generally reported that 11 peasants from Matale, Mwasengela, Mgánga, Tindabuligi and Mwamhongo villages in Meatu District lost their crops to elephant destruction.²⁷ In the same year, 39 cases of crop damage were reported and buffalo and hyena killed 2 people from Makao and Kisesa village.²⁸ The situation became worse in 2018 after 165 villagers from Buganza, Mwajidalala, Ng'hanga, Busia, Mwanayahina, Nghoboko and Mbugayabhanya witnessed their 499.5 hectares of maize, cotton, millet, sorghum and sunflower being destroyed by elephants.²⁹ In the same year, a Hippopotamus killed 1 villager from Mwangudo Village while 1 sheep and 12 goats from Irambandogo and Mwambiti villages were also killed.³⁰ This was a painful side of conservation practices to the livelihoods of villagers.

The aforementioned events not only caused loss of manpower and resources but also exacerbated problems of food security in Meatu District (Weimann, 2018, Nyirenda et al, 2012). Such challenges increased resentment of the people towards conservation activities in the MGR Ecosystem. However, such resentments were reduced in many protected areas in the country following the introduction of consolation and compensation packages under section 7 of the *Wildlife Conservation Act No.5* of 2009.³¹ The packages involved giving a relatively small amount of money to people who had lost their relatives, livestock or crops, depending on the type of loss they suffered. In case of crop damages, the amount of compensations depended on the distance of the respective farms from the protected area (see table 7 below). The more a villager approached a protected area the less the amount to

²⁶ Taarifa ya matokeo ya tathmini ya uharibifu wa mazao mashambani kutokana na uvamizi wa tembo katika vijiji vya Mwanayahina, Ng'hanga, Matale na Bulyandulu, 13/04/2015, MDC, File.No.HWM/G1/1 Vol.II/18: correspondence general; also interview with Mohamed Kindunda on 26/10/2018at Mwanhuzi Town

²⁷ Taarifa ya ziara ya tathimini ya uharibifu wa mazao mashambani kutokana na tembo iliyofanyika tarehe 8 April, 2015, MDC, File No.HWM/A40/Vol.XVI/67: Correspondence General.

²⁸ Taarifa ya uvamizi wa wanyamapori katika vijiji vinavyopakana na pori la Maswa na hifadhi ya wanyama ya jamii ya Makao, 03/04/2018, MDC, File No.HWM/G1/1Vol.II/60: Correspondence General.

²⁹ Taarifa ya matokeo ya tathimini ya uharibifu wa mazao mashambani uliosababishwa na uvamizi wa wanyama katika vijiji Wilayani Meatu kwa kipindi cha miezi sita (6) kwa mwaka huu 2018 kwaajili ya malipo ya kifuta jasho, 21/06/2018, MDC, File No.HWM/G1/1 Vol. II/73: Correspondence General.

³⁰ Ibid.

³¹ URT, *Wildlife Conservation Act No.9 of 2009*; also see, Mazao kuharibiwa na tembo tarehe 25/06/2013 Kijiji cha Mwanayahina, 30/10/2013", MDC, File No.GD/MEAT/PAC/23: Correspondence General and Erwin Bulte & Daniel Rondeau. (2007). Compensation for Wildlife Damages: Habitat Conversion, Species Preservation and Local Welfare, *Journal of Environmental economics Management*, 54(3), 311-322.

be compensated. Such difference has been the cause of many complaints by the villagers around the MGR as many who suffered losses were those living near the MGR. For instance, more than Tshs. 100,000,000/= was provided as compensation to villagers surrounding the MGR in 2018, however, since about 90% of the affected people by crop damages around the MGR were those who cultivated less than 4km away from the western boundary of the MGR, they received little compensation money.³² Villagers also complained that generally compensation packages did not match the losses, and yet still there were a number of bureaucratic procedures to follow before one received the compensation.³³

Table 7: Consolation Packages under the Wildlife Conservation Act No.5 of 2009

S/n	Type of damage	Consolation Amount (TShs.)
1	Loss of life of a person	1,000,000
2	Permanent disability of a person	500,000
3	Temporary injury of a person	200,000
4	Crops per acres	
	0.5 km from the reserve boundary (within buffer zone)	No payment
	0.5-1.0	25,000
	1.1-4.1	50,000
	4.1-5.0	75,000
	More than 5.1 km	100,000
5	Killed cattle	50,000
6	Killed sheep, goat, pig, donkey etc	25,000
7	Any other domesticated animal killed	10,000

Source: WCA, 2009

CBC initiatives in MGR and Makao WMA from the mid -1990s to 2010s, Effective?

The introduction of CBC in many protected areas has proved to be a panacea and not a myth as it has been relatively successful apart from the challenges it faces. MGR Ecosystem has benefited from this strategy especially between 1990s and 2010s as people viewed conservation as advantageous and not a chaos regardless of the disadvantages of wildlife presence near their localities. Robin Hurt of CHWLP did an evaluation in 2000 and revealed that poaching was remarkably reduced in MGR and Makao Open Area by the end of the 2000s. This reduction was attributed to local people's satisfaction under CBC arrangements and intensive anti -poaching operations under FCF and the CHWLP which reduced poaching practices and the number of snares used (Clarke, 2001).³⁴ For instance, the number

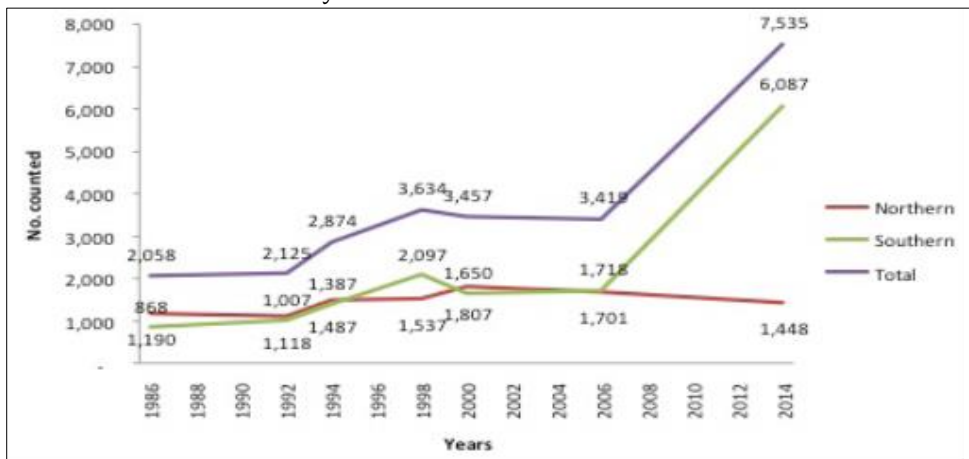
³² MDC, File No.HWM/A40/Vol.XVI/67; Taarifa ya matokeo, MDC, File No.HWM/G1/1 Vol. II/73 also interviewsat Mwajidalala on 12 Oct, 2018, on 16/10/2018at Makao; on 16th Oct, 2018at Busia Village, and on 17thOct, 2018 at Ng'hanga Village.

³³ Lamarque F, et al. (2009). *Human-wildlife conflict in Africa: causes, consequences and management strategies* (No. 157), p.40; Mazao kuharibiwa na tembo 25/06/2013 kijiji cha Mwanyahina", GD/MEAT/PAC/23 also interviewson 16th Oct, 2018at Busia Village, Mbuke Malimi on 17/10/2018at Ng'hanga Village.

³⁴ Interviews on 28th Oct, 2018 at Mwanhuzi Town

of snares captured and destroyed by the game scouts in the MGR and Makao Open Area was reduced from 5,000 snares in the 1990s when CBC was at its initial stage to 500 snares in the 2000s (Hurt & Ravn, 2000). Even hunting by using dogs, which was a common practice in the MGR Ecosystem seriously declined and was last observed in the area in 1999 (Clarke, 2001). Illegal hunting of elephants which was previously more common to Southern Serengeti than in Northern Serengeti areas also declined remarkably.

Consequently, by 2000s CBC started to prove its effectiveness in the MGR Ecosystem. In the 2010s, the local people's satisfaction increased even more as there was an increase in the number of CBC projects and human relations programs that drew villagers' attention towards conservation. This led into an increased number of wild animals in the MGR Ecosystem and the whole Southern Serengeti. In 2014 TAWIRI surveyed the area and observed that there was a sharp increase in the number of elephants from 1,650 in 2000 to 6,087 in 2014 as seen in figure 2 below. This is a remarkable success of conservation efforts and strategies. Oral articulation reveals that one of the factors that attributed to such a success was the increased seriousness in the implementation of CBC projects and improving human relations in the MGR Ecosystem.³⁵



Source: TAWIRI, 2014

Figure 2: Trend of Elephant Population from 1986 to 2014 in SMES

The general level of awareness, stewardship and participation increased a little bit by 2010 despite its challenges as already explained above. Other initiatives to increase the level of participation were revealed through the introduction of the 'Reward Schemes' by CHWP under the RHS tourist hunting Company. Under such schemes, game scouts and other villagers were awarded for cooperating with conservationists and provided necessary information that enabled to capture poachers and other related law breakers. In the 1990s, TShs. 250-500 was awarded

³⁵ Interviews on 26th Oct 2018 at Mwanhuzi Town, and on 29th Oct 2018 at Sakasaka Village.

for each recovered cable/wire snare, Tshs. 5,000/= per destroyed poacher camp, TShs. 20,000/= per convicted poacher, TShs. 30,000/= per muzzle loader handed to the Wildlife Division (WD), TShs. 60,000/= per rifle/short gun handed to the WD as well as TShs. 250,000/= per elephant or rhino poacher convicted (Hurt & Ravn, 2000, Clarke, 2001). About 7 million shillings (30,000 USD) was given to anti-poaching teams in different villages surrounding MGR Ecosystem as rewards and wages (Clarke, 2001). Even though some of such initiatives like rewards schemes later phased out, there are still some remnants of the spirit of stewardship, awareness and participation of the local people towards wildlife conservation.

However, notwithstanding such success, CBC still faces increasing challenges. In this study, we have indicated that such challenges were much more common in the game reserves than in WMAs. In the former, the local people still had a lot of resentments towards conservation activities due to the little benefits they received from such activities compared to their neighbouring villages in Makao WMA. As already discussed, MGR villages received less hunting benefits than Makao WMA Villages. More importantly, even such little benefits did not trickle down to individual households. For this reason, some had the feeling that it was the hunting companies and the government that benefited from tourist hunting activities at their own expense.

Conclusion

CBC has proven to be a promising intervention in place of fortress conservation in the face of existing challenges, particularly in game reserves. It is a reality that has prompted local residents living near protected areas to foster a positive attitude among themselves, which aids in the mitigation of conservation issues. Local people are a key part of any long-term conservation strategy, and they operate under a value and opportunity-based philosophy. The more people gain from the initiatives, the more interested they become in conservation activities, and vice versa. This highlights the importance of a win-win situation above technocratic enforcement based on strict legal requirements and norms. As seen by the diverse outcomes from different conservation zones in Tanzania, its efficacy is highly dependent on the type of people's exposure to wildlife resources and tourism-related benefits. Although CBC is seen to be people-centred, it is actually state-centred, which is a difficulty in and of itself. Without negotiation or compromise, the government plans what will be done in CBC and then returns it to the people for implementation. In the end, a people-centred approach will remain a caveat for policymakers that want to play conservation politics in their own interests. CBC overlaps with fortress conservation in MGR, as it does in other game reserves, because local people are still barred from entering the reserve, denying them access to the area's resources, which include fertile agricultural land for cultivation. Such obstacles hamper the success of CBC in many game reserves.

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