

Tarangire Conservation Area

Eneo la Hifadhi la Tarangire



Management Plan Revised October 2009

TARANGIRE CONSERVATION AREA
Eneo la Hifadhi la Tarangire

MANAGEMENT PLAN

VISION

A large poster of completed achievements is displayed on the wall of the Lolkisale Council offices, which not only speaks of the achievements of the local village council, but also has a quote from the village chairman.

" Our people are working to ensure the survival of our Masai culture, but we must embrace the benefits that wildlife and tourism brings, this is also our future".

(Mzee Julius Muhale, June 2004).

As Tanzanians strive to find a balance between the nomadic farming culture of the Masai, and a modern, sustainable conservation model, the partnership between the people of Lolkisale and its private sector partners, is today fittingly described by the local Kiswahili saying, Maziwa ya Tembo that, " milk will come from the elephants".



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STATEMENT OF SIGNIFICANCE *MAELEZO MAALUM*

The Tarangire Conservation Area (585 sq km) like its neighbour Tarangire National Park (2,597 sq km) is part of a far greater ecosystem that encompasses approximately 35,000 sq km of the Maasai Steppe. The ecosystem extends over five districts and contains a series of protected areas which include the Manyara National Park, Lake Natron and Mto Wa Mbu Game Controlled Area in the north, the Lolkisale and Simanjiro Game Controlled Area in the east, the Mkugunero Game Controlled Area in the south, the Kwakuchinja Open Area in the west, together with the Tarangire National Park in the centre. The significance of the Tarangire Conservation Area can only be realized in its entirety by examining it from the ecosystem perspective.

The Tarangire ecosystem is part of the Somali-Maasai bio-geographic regional centre of endemism and is characterized by a large mammal community that includes 58 species typical of the East African savannah. The ecosystem supports a large mammal migration driven by a dry season river system and hosts the biggest population of elephant in northern Tanzania. Tarangire National Park, a protected area where natural resources are fully protected, occupies only 8% of the entire ecosystem and encompasses critical dry season wetlands and the Tarangire River system. Outside of the Tarangire and Manyara National Parks, despite the protected area status of a large proportion of the ecosystem, there are no protective mechanisms for habitat and few for wildlife resources. Growing human and livestock populations together with unregulated agricultural expansion are encroaching into critical wildlife migration and dispersal areas contributing to the increasing isolation of Tarangire National Park. Unchecked, these trends threaten to significantly perturb the Tarangire ecosystem directly endangering the long term survival of migratory species which include zebra, wildebeest, elephant, buffalo, eland and oryx together with the predatory ‘follower’ species that prey upon them. The Tarangire ecosystem is one of considerable global and national significance but, without deliberate and qualified management interventions at the ecosystem level, its natural resource values and functions will continue to be steadily and irrevocably degraded.

Lolkisale community land, as with other village lands peripheral to Tarangire National Park, has significant natural resources from both an economic and conservation perspective. At the community level the economic and conservation aspects of these natural resources are intertwined, villagers relying on the natural resources for their economic survival. Currently community economic reliance is upon the primary economic activities of livestock herding, agriculture and

Eneo la Hifadhi la Tarangire (lenye ukubwa wa kilomita za mraba 585) kama jirani yake Eneo la Hifadhi ya Taifa la Tarangire (ambalo lina ukubwa wa kilomita za mraba 2,597), ni sehemu katika mfumo wa wanyama mkubwa zaidi ambaa una ukubwa wa kama kilomita za mraba 35,000 za Mbuga ya Maasai. Mfumo wa wanyama unatanda kwenye wilaya tano na pia unajumuisha mwandamano wa maeneo ya hifadhi ambayo ni pamoja na Hifadhi ya Taifa ya Manyara, Mto Natron na Eneo la Mamlaka ya Wanyamapori la Mto Wa Mbu upande wa kaskazini, na maeneo ya Mamlaka ya Wanyamapori la Lolkisale na Simanjiro yalioko mashariki, Eneo la Mamlaka ya Wanyamapori la Mkugunero lililoko kusini, Eneo Wazi Kwa kuchinja upande wa magharibi, pamoja na Hifadhi ya Taifa ya Tarangire sehemu ya katikati. Umuhimu wa Eneo la Hifadhi la Tarangire unaweza kutambuliwa kikamilifu baada ya uchunguzi wa kutumia mtazamo wa mfumo wa wanyama (elimu ya jinsia viumbe na mazingira vinavyotegemeana kwa uhai wao).

Mfumo wa wanyama wa Tarangire ni sehemu ya eneo la kijografia la Somali – Maasai lenye uhai mkubwa na linalojulikana kuwa na jamii kubwa ya wanyama ambaa ni pamoja na aina 58 tofauti ambazo zinapati-kana kwenye uwanda wa Afrika ya Mashariki tu. Mfumo huu unahimili kuhamahama kwa wanyamapori kunakosababishwa na mfumo wa ukaukaji wa mito, na unalea idadi kubwa sana ya tembo walioko kaskazini mwa Tanzania. Hifadhi ya Taifa ya Tarangire, ambamo rasilimali za asili zinatunzwa kikamilifu, lina ukubwa wa asilimia 8% tu ya eneo mfumo mzima wa wanyama mzima na lina maeneo ya majimaji ya misimu ya ukame na mfumo wa Mto Tarangire. Nje ya Hifadhi za Taifa za Tarangire na Manyara, pamoja na kuwa na hadhi ya utunzaji mkubwa wa eneo la kubwa la wanyama hakuna taratibu za utunzaji wa mazingira na wa rasilimali za wanyamapori. Ukuaji wa ongezeko la binadamu na mifugo pamoja na ukuaji wa kilimo wa kiholela unaingilia uhamaji na utawanyikaji wa wanyama na hivyo kuchangia kwenye sababu za kutenzia kwa Hifadhi ya Taifa ya Tarangire. Bila ya kuzuiwa, mitindo hii itatishia kuathiri mfumo wa wanyama wa Tarangire na hivyo kusababisha kuhatarisha uhai wa viumbe vinavyohamahama ambavyo ni kama punya milia, kongoni, tembo, nyati, popu na choroa pamoja na viumbe “fuatizi” vinavyowawinda. Mfumo wa wanyama wa Tarangire ni wenye umuhimu mkubwa duniani na kitaifa lakini, bila ya usimamizi wa uangalifu wa kitaalamu, thamani zake na mchango wake wa kiasili utaendelea kumong’onyoka.

Kutokana na mtazamo wa kiuchumi na wa hifadhi, eneo la jamii ya Lolkisale kama vijiji vingine ambavyo viko kandokando ya Hifadhi ya Taifa ya Tarangire, lina rasilimali za asili za kutosha. Kwa kiwango cha

charcoal production for which is required a narrow band of the available spectrum of resources. Agriculture in particular, which for the majority of the arid and semi-arid rangelands is a marginal pursuit, clears natural habitat, fundamentally interfering with natural resource processes and patterns.

The Tarangire Conservation Area has notable natural resource values in its own right. However, it also represents a repository of critical ecosystem wide resource values which are safeguarded by its security of habitat. It is a recognized dispersal area for a sub population of elephant from outside of the National Park as well as a dispersal area for buffalo. It is transited as a migration route for zebra and wildebeest following migratory patterns to and from calving areas outside the National Park. One of these calving areas, Enguisero Oldupai pastures, is within the Lolkisale Livestock and Wildlife Zone, while the other is on the Simanjiro Plains.

The Gosuwa Swamp is a critical water source and provides forage into the dry season for wildlife and livestock, as well as providing habitat for a wide variety of avifauna. The highland area of the Tarangire Conservation Area is the most important catchment area for the Tarangire River in the north of the park. The highlands also provide an aspect of a varied vegetation and landscape mosaic with spectacular views and scenery. This variable geographic and floral environment supports an abundance of a wide diversity of fauna and avifauna, many of which are endangered, threatened, endemic and rare species of exceptional value.

kijamii, vipengele vya kiuchumi na vya hifadhi vinahusiana, wanakijiji wanategemea rasilimali za asili kwa kujikimu kiuchumi. Hali ilivyo hivi sasa, wanajamii wanategemea shughuli za kiuchumi za ufgaji, kilimo na uokaji mkaa, shughuli ambazo zinategemea rasilimali zilizopo. Kilimo hasa, ambacho hufanyika kwenye maeneo ya ukame na yale yasiyo ya ukame, husababisha mabadiliko ya mazingira ya asili na hivyo kuungilia mifumo na taratibu za rasilimali ya asili.

Eneo la Hifadhi la Tarangire lina thamani zake maalum za kiasili. Pia, lina hazina ya rasilimali za thamani nyindi ambazo hutunzwa na hali ya usalama wa eneo hilo. Ni sehemu inayotambulika ya utawanyisho wa tembo wanaotoka nje ya Hifadhi ya Taifa, pamoja na nyati. Ni njia ya punda milia na kongoni wakipita kwenye njia zilizopo kwenda kwenye sehemu zao za kuzalia zilizopo nje ya Eneo la Hifadhi. Sehemu mojawapo ya kuzalia ni kwenye eneo la malisho ya Enguisero Oldupai, ambayo yako ndani ya Ukanda wa Mifugo na Wanyama Pori wa Lolkisale, na nyininge iko kwenye uwanda wa Simanjiro.

Kinamasi la Gosuwa ni chanzo muhimu cha maji na cha malisho kwa wanyamapori na mifugo hasa kipindi cha kiangazi, na ni sehemu yenye makazi ya aina nyindi na tofauti za fauna (mkusanyiko wa wanyama katika mazingira fulani). Nyanda za juu za Eneo la Hifadhi la Tarangire ni sehemu ya muhimu sana ya ukingaji wa maji ya Mto Tarangire kwa upande wa kaskazini wa mbuga. Nyanda za juu hizo pia ni kipengele cha uoto na mandhari yenye mpangilio wa aina tofauti na hivyo kuvutia machoni. Mazingira haya ya kijografia na mimea tofauti yanayobadilikabadi, yanahimili uwangi mkubwa wa anuwai ya mimea na wanyama. Wengi kati yao wako hatarini, wanaelekea kutoweka, wanapatikana sehemu hiyo tu na ni adimu na hivyo wana thamani bora sana isiyo ya kawaida.

1.0 Introduction *Utangulizi*

1.0: Introduction

This Tarangire Conservation Area Draft Management Plan represents a significant step toward the goal of deriving an appropriate management planning scenario for land set aside by the communities of Lolkisale, Mswakini Juu, Naitolia and Makuyuni; specifically for conservation purposes. While the concept of community-based conservation in Tanzania is not a new one, the establishment of a conservation area on community owned land, which is actively managed by that community, is. In addition, the joint venture partnership between the Lolkisale Community and private sector stakeholders to establish and manage a quality tourist product based within the conservation area introduces an exciting opportunity to generate income sufficient to fund the recurrent costs of conservation area management as well the provision of revenues to stimulate community development activities. An appropriate balance of natural resource and business management will provide a platform for the generation of reliable recurrent revenues, whilst also protecting and nurturing an area of high quality bio-diversity which, in itself, is also part of a nationally important larger ecosystem, the Tarangire ecosystem.

As this endeavour is the first of its kind in Tanzania it will have, as with any pioneering project, many challenges to confront in the establishment of a management scenario appropriate to this unique situation. The vision of the project, while community centred and driven, also acknowledges the fact that it is but one facet of many within the Tarangire ecosystem and that, to be successful, the roles of other stakeholders have to be embraced.

1.1: Introduction to the Conservation Area

The Tarangire Conservation Area (TCA) occupies an area of over 585 sq km on the north eastern border of Tarangire National Park. The TCA comprises four distinct areas, the Lolkisale Conservation Area (LCA), the Naitolia Concession Area (NCA), the Makuyuni Elephant Dispersal Area (MEDA) and the Lolkisale Livestock and Wildlife Zone (LLWZ).

The Tarangire Conservation Area is an attempt to protect the important habitats outside the Tarangire National Park as well as providing an opportunity for the local communities to be involved in the management of the Conservation Area and the revenue generated through various low impact tourism ventures.

Tarangire National Park occupies an area of nearly 2,600 sq km in an ecosystem of nearly 8,358 sq km. The park was established to protect the dry season

1.0: Utangulizi

Mswadajaribio wa Muundo huu wa Usimamizi wa Eneo la Hifadhi la Tarangire unawakilisha hatua maalum itakayoelkea kwenye lengo la upatikanaji wa mpangilio / utaratibu wa usimamizi utakaofaa wa ardhi itakayotengwa na jamii za Lolkisale, Mswakini Juu, Naitolia na Makuyuni; hasa kwa madhumuni ya hifadhi. Wakati usimamizi wa hifadhi ya mazingira wa jamii si dhana ngeni nchini Tanzania, uundaji wa eneo la hifadhi kwenye ardhi inayomilikiwa na jamii, ambayo inasimamiwa kikamilifu na jamii, ni. Zaidi ya hapo, ubia kati ya Jamii ya Lolkisale na wadau wa kutoka sekta binafsi kwenye uundaji na usimamiji wa bidhaa bora ya kuvutia watalii itakayokuwa ndani ya eneo la hifadhi italeta fursa ya kusisimua ya kuzalisha kipato cha kugharamia matumizi ya kawaida ya usimamizi wa eneo la hifadhi pamoja na kutoa mapato kwa madhumuni ya kuchangamsha shughuli nyingine za maendeleo katika jamii. Uwiano mahususi kati ya rasilimali ya asili na usimamizi wa biashara utatoa jukwaa la uzalishaji wa mapato ya kawaida endelevu, na hapo hapo kulitunza na kulilea eneo la mfumo wa wanyaama la Tarangire liwe lenye ubora wa hali ya juu, na ambalo ni sehemu ya mfumo wa wanyaama la taifa muhimu.

Kwa vile shughuli hii ni ya pekee nchini Tanzania itatoa, kama miradi mingine tangulizi, changamoto nyinigi katika upambanaji wa kuunda usimamizi wa mazingira utakaofaa kufuatwa kwenye hali maalum kama hii. Dhamira ya mradi ambao ni wa kijamii na utaendeshwa na jamii yenyewe, pia unatambua ya kwamba ili kuhakikisha mafanikio ya mradi kuna umuhimu mkubwa wa kushirikisha mchango wa wadau wengine.

1.1: Utambulisho wa Eneo la Hifadhi

Eneo la Hifadhi la Tarangire (TCA) limetanda juu ya lenye zaidi ya kilomita za mraba 585 juu mpaka wa kaskazini mashariki wa Mbuga ya Taifa ya Tarangire. TCA inajumuisha maeneo rasmi manne ambayo ni; Eneo la Hifadhi la Lolkisale (LCA), Eneo la Milki la Naitolia (NCA), Eneo Tawanyishi la Tembo la Makuyuni (MEDA) na Ukanda wa Mifugo na Wanyamapori wa Lolkisale (LLWZ).

Eneo la Hifadhi la Tarangire ni jitihada ya kulinda na kutunza mazingira muhimu ambayo yako nje ya Hifadhi ya Taifa ya Tarangire pamoja na kutoa fursa kwa jamii za kienyeji kuhusika na usimamizi wa eneo husika na mapato yatokanayo na shughuli tofauti za kitalii ambazo hazitaharibu mazingira.

Hifadhi ya Taifa la Tarangire imetanda ya eneo lenye ukubwa wa karibu kilomita za mraba 2,600 kwenye

refuge surrounding the Tarangire River. During the wet season from mid November to end of May, eighty percent of all wildlife departs from the National Park and head into the village lands adjacent to the park. The establishment of the TCA is an attempt to not only protect the adjacent village lands for wildlife preservation but an attempt to involve the local communities in the management of their lands for community benefit.

Without a concerted effort to protect the village lands surrounding Tarangire National Park, the very future of the park itself will be in jeopardy.

1.1.1: Naitolia Concession Area

The Naitolia Concession Area is approximately 55 sq km, within the village lands of Mswakini Juu and Makuyuni. The Concession Area protects the northern migration routes from Tarangire National Park to Lake Manyara and the Natron areas of the Tarangire Ecosystem. Within the Concession Area is the northern extent of the Lemiyon Plains and the Naitolia flood-plains, both of very high importance in the Tarangire Ecosystem. Within the Concession Area is the small eight bed Naitolia camp, which is the only tourist facility in the area.

1.1.2: Makuyuni Elephant Dispersal Area

The Makuyuni Elephant Dispersal Area is approximately 38 sq km, within the village of Makuyuni. This area represents a critical dispersal area for the northern sub-population of elephants in Tarangire National Park and is used mainly from December through to early June.

1.1.3: Lolkisale Conservation Area

The Lolkisale Conservation Area is the core preservation area within the Tarangire Conservation Area. Over 164 sq kilometres in size the LCA encompasses the main watershed for the Tarangire River in the north; the migration routes for wildebeest and zebras towards the calving areas near Lolkisale Mountain; and the important wetlands surrounding Gosuwa Swamp. There are two tourist facilities within the LCA, Tarangire Tree Tops with 40 beds and Boundary Hill Lodge with 16 beds. The LCA has been established by Lolkisale Village.

1.1.4: Lolkisale Livestock and Wildlife Zone

The LLWZ was established to provide a buffer zone from agricultural activities around Lolkisale Mountain to the east, and to preserve an area for traditional pastoralist's activities such as the grazing of cattle and goats, firewood collection and bee keeping, whilst

mfumo wa ekosistim ya wastani kilomita za mraba 8,358. Mbuga hiyo iliundwa kwa madhumuni ya kulin-dala kimbilio la majira ya kiangazi linalozunguka Mto wa Tarangire. Wakati wa kipindi cha mvua kinachoa-nza katikati ya mwezi Novemba hadi mwisho wa mwezi Mei, asilimia themanini (80%) ya wanyamapori wote huhama na kuelekea kwenye ardhi za vijiji zina-zopakana na Mbuga ya Hifadhi. Uundaji wa TCA ni jitihada ambayo hatalinda ardhi za vijiji jirani kwa madhumuni ya kutunza wanyamapori tu, lakini pia ni juhudii ya kuhusisha jamii za kienyeji kwenye usimami-zi wa ardhi zao na kwa manufaa yao.

Bila ya jitihada za pamoja za kulinda ardhi ya vijiji vinavyozunguka Eneo la Hifadhi ya Taifa la Tarangi-re, hali ya mbuga yenye kwa siku za baadaye itaku-wa hatarini.

1.1.1: Eneo la Milki la Naitolia

Eneo la Milki la Naitolia lina takriban kilomita za mraba 55, ndani ya ardhi za vijiji vya Mswakini Juu na Makuyuni. Eneo la Milki hiyo linalinda njia za uhamaji za kaskazini zitokazo Mbuga ya Hifadhi ya Taifa ya Tarangire kuelekea Ziwa la Manyara na la Natron, ambako ni maeneo ya mfumo wa wanyama la Tarangire. Ndani ya Eneo la Milki kuna kilele cha kaskazini cha Uwanda wa Lemiyon na tambarare inayofurika ya Naitolia, sehemu zote hizi zina umuhimu wa hali ya juu kwenye mfumo wa wanyama ya Tarangire. Ndani ya Eneo la Milki kuna kambi ndogo ya Naitolia yenye vitanda vinane. Hii ni sehemu pekee ya kitalii kwenye eneo hili.

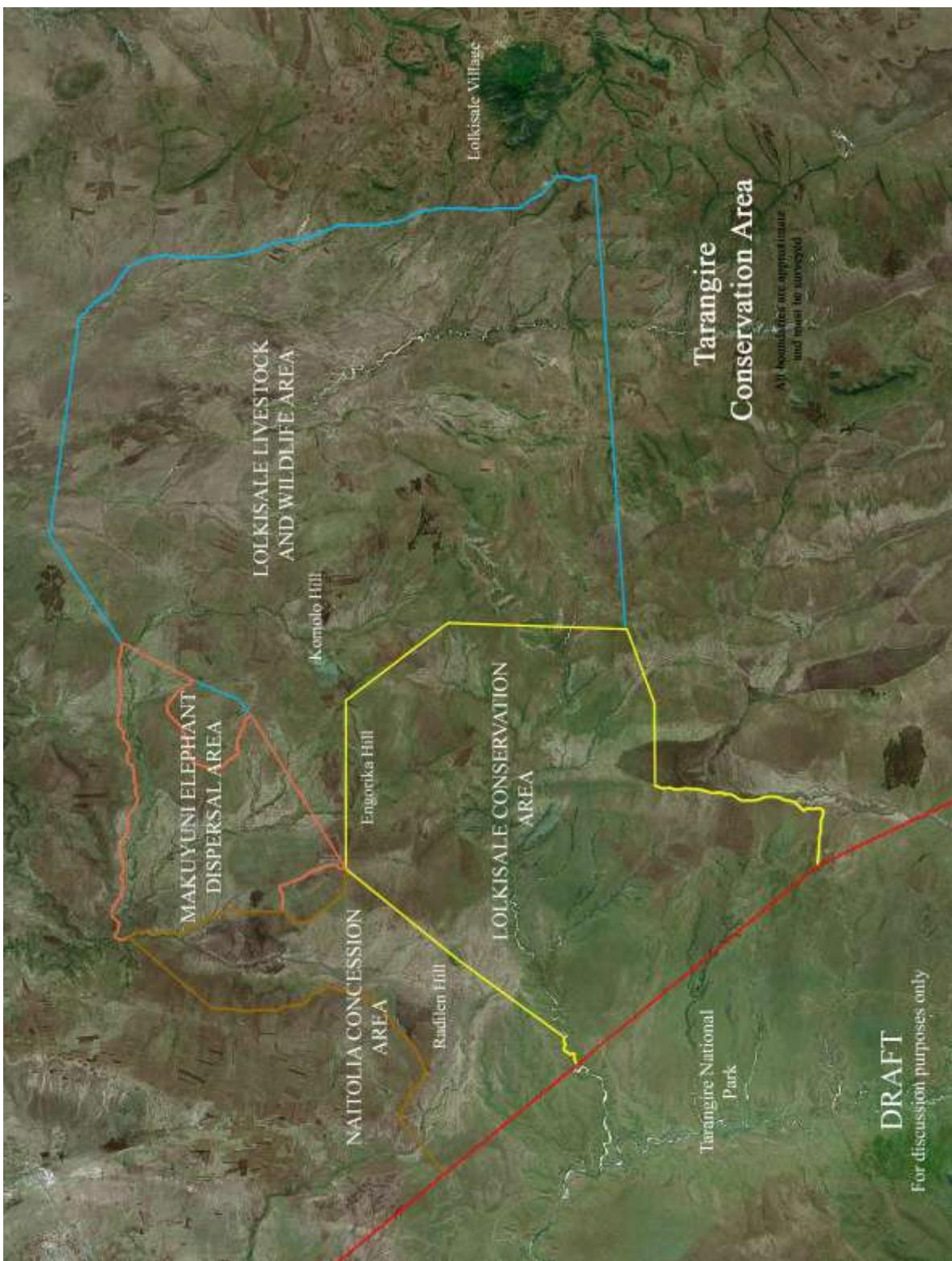
1.1.2: Eneo Tawanyishi la Tembo la Makuyuni

Eneo Tawanyishi la Tembo la Makuyuni lina ukubwa wa takriban kilomita za mraba 38, ndani ya kijiji cha Makuyuni. Eneo hili linawakilisha sehemu nyeti ya kutawanyika kundi dogo la tembo wa kaskazini walipo ndani ya Mbuga ya Taifa ya Tarangire na hutumika haswa kuanzia mwezi Desemba hadi mwanzo wa mwezi Juni.

1.1.3: Eneo la Hifadhi la Lolkisale

Eneo la Hifadhi la Lolkisale ni kiini cha hifadhi ndani ya Eneo la Hifadhi la Tarangire. Likiwa na ukubwa wa zaidi ya kilomita za mraba 164, eneo la LCA linajumuisha eneo kuu la mwinuko linalogawia maji Mto Tarangire upande wa kaskazini; njia za uhamaji za kongoni na punda milia wakielekea kwenye sehemu za kuzalia ndama wao karibu na Mlima wa Lolkisale; na maeneo muhimu ya maji maji yanayozunguka Kinamasi ya Gosuwa. Kuna sehemu mbili za kitalii ndani ya LCA; Tarangire Tree Tops yenye vitanda 40 na Boundary Hill Lodge ambayo ina vitanda 16. LCA imeund-

Figure 1: Tarangire Conservation Area
Kielelezo cha 1 : Eneo la Hifadhi la Tarangire



also preserving the wet season migration routes and breeding grounds. The LLWZ is approximately 328 sq km and lies within Lolkisale village lands.

1.2: Location

The Tarangire Conservation Area is located between 3 deg 35 min to 3 deg 53 min south and 36 deg 05 min to 36 deg 38 min east at an elevation of between 1,100 and 1,400 meters above sea level. It lies 118 km southwest of Arusha, east of the Arusha-Dodoma road and within the administrative district of Monduli.



1.3: Access/ Jinsi ya kulifika eneo

The Tarangire Conservation Area is within the Tanzanian northern tourist circuit and is accessible from the north east by vehicle from the Great North Road (Arusha to Dodoma) 90 kilometres from Arusha using a dirt road 10 kilometres west of Makuyuni Village. This road is also an access road for the villages of Mswakini Juu and Naitolia, and a transit road for those travelling to Lolkisale Village, Lolkisale sub villages and points south. Alternate access to the conservation area can be made from the north and east using dirt roads originating in Lolkisale Village and sub-villages. These roads are passable in the dry season only. There is also access from the south by dirt roads originating in Loiborsoit village. Access can also be made through the Tarangire National Park by using the Boundary Hill Gate exit to the south of the Tarangire Conservation Area.

The nearest airstrip to the Conservation Area is a bush strip 8 kilometres away in Tarangire National Park. The nearest village is Naitolia, 5 kilometres from the nearest Conservation boundary to the north. Lolkisale village is 22 kilometres away from the nearest eastern boundary of the Tarangire Conservation Area.

wa na Kijiji cha Lolkisale.

1.1.4: Ukanda wa Mifugo na Wanyamapor wa Lolkisale

Ukanda wa LLWZ uliundwa kama kinga dhidi ya shughuli za kilimo upande wa mashariki mwa Mlima Lolkisale, na kulitunza eneo kwa madhumuni ya shughuli za kijadi za wafugaji kama malisho ya ng'ombe na mbuzi, uokotaji wa kuni na ufugaji wa nyuki, na pia kuzitunza njia za uhamaji kipindi cha mvua na zile zinazoelekeea kwenye viwanja vya kuzalia. Ukanda wa LLWZ ni takriban ukubwa wa kilomita za mraba 328 na umo ndani ya ardhi za vijiji vya Lolkisale.

1.2: Sehemu iliyopo

Eneo la Hifadhi la Tarangire liko kati ya nyuzi 3 daki-ka 35 kuelekea kwenye nyuzi 3 dakika 53 kusini na nyuzi 36 dakika 05 kuelekea nyuzi 36 dakika 38 mas- hariki kwenye mwinuko wa kati ya mita 1,100 na 1,400 usawa wa bahari. Eneo liko kilomita 18 kusini mag- haribi ya Arusha, mashariki ya barabara ya Arusha - Dodoma na ndani ya mamlaka ya wilaya ya Monduli.

1.3: Jinsi ya kulifika eneo

Eneo la Hifadhi la Tarangire liko ndani ya mzunguko wa kitalii wa kaskazini na linafikika kwa kupitia kaskazini mashariki kwa gari kutokea barabara kuu ya kaskazini (Arusha hadi Dodoma) yenye kilomita 90 kutoka Arusha kwa kutumia barabara ya udongo kilomita 10 magharibi mwa Kijiji cha Makuyuni. Barabara hii pia hutumika kufikia kwenye vijiji vya Mswakini Juu na Naitolia, na inatumika na watu wanaoenda Kijiji cha Lolkisale, vitongoji vya Lolkisale kuelekea kusini. Njia nyingine ya kufika kwenye eneo la hifadhi ni kutoka kaskazini na mashariki kwa kutumia barabara za udongo zinazoanza Kijiji cha Lolkisale na vitongoji vyake. Barabara hizi zinapitika nyakati za ukame tu. Pia kuna njia nyingine itokayo kusini kwa kutumia barabara za udongo zinazoanza Kijiji cha Loiborsoit. Njia nyingine pia inawezekana kwa kukatiza Mbuga ya Taifa ya Hifadhi ya Tarangire na kutokea lango kubwa la Boundary Hill linalofunguka kusini mwa Eneo la Hifadhi la Tarangire.

Kiwanja cha ndege kilicho karibu na Eneo la Hifadhi ni kishoroba cha pori kilicho na umbali wa kilomita 8 ndani ya Mbuga ya Taifa ya Tarangire.

Kijiji cha karibu ni cha Naitolia, chenye umbali wa kilomita 5 kutoka mpaka wa karibu wa Eneo la Hifadhi kwa upande wa kaskazini. Kijiji cha Lolkisale kina umbali wa kilomita 22 kutoka mpaka wa mashariki wa Eneo la Hifadhi la Tarangire.

1.4: Existing Infrastructure

Rangers Posts: There is the infrastructure for a Rangers Post in the TCA located at Radilen Hill. This will also be the main entrance gate for the Tarangire Conservation Area, midway between the border of the LCA and the Naitolia Concession Area. This gate will also have a visitors information centre nearby.

Visitor facilities: There are three permanent visitor facilities within the Tarangire Conservation Area, one permanent camp and one special campsite.

	Number of beds <i>Jumla ya vitanda</i>
Tarangire Tree Tops	40
Boundary Hill Lodge	16
Naitolia Camp	10
Sidai Camp	8
Sand River campsite	16
Total	90

In Tarangire National Park, there are 758 beds for a total area of 2,649 sq km at 0.29 beds per sq km, compared with the Tarangire Conservation Area of 76 beds for a total area of 585 sq km at 0.15 beds per sq km. However the effective area within the park is only 1,382 sq km being the top half of the park where all the facilities are located and all the game routes are located at a rate of 0.54 beds per sq km. The effective area in the Tarangire Conservation Area is 257 sq km, not including the LLWZ at a rate of 0.35 beds per sq km, just over 50% of that of the National Park.

Signage: Signage in the Conservation Area is at present limited to directions to the various visitor facilities. There are no signs with interpretive information such as type of activities permitted, habitat, flora and fauna.

Picnic Site and observation points: There is only one observation site at present located in the Conservation Area near the top of Radilen Hill. This site is used late in the evening for sundowners.

1.4: Miundo Mbinu iliyopo

Vituo vya Wahifadhi: Kuna muundo mbinu wa Kituo cha Wahifadhi kilichopo Kilima cha Radilen ndani ya TCA. Hapa ndiyo lango kuu la Eneo la Hifadhi la Tarangire, katikati ya mpaka wa LCA na Eneo la Milki la Naitolia. Karibu na lango hili kutakuwa na kituo cha taarifa cha wageni.

Huduma za Wageni: Kuna vituo vya kudumu vya wageni vitatu ndani ya Eneo la Hifadhi la Tarangire, kambi moja ya kudumu na nyingine maalu.

Ndani ya Mbuga ya Taifa ya Tarangire, kuna jumla ya vitanda 758 kwa eneo la kilomita za mraba 2,649 ambayo ni sawasawa na vitanda 0.29 kwa kila kilomita ya mraba, ukilinganisha na Eneo la Hifadhi ya Tarangire lenye jumla ya vitanda 76 kwa jumla ya eneo la kilomita za mraba 585 ambayo ni sawasawa na vitanda 0.15 kwa kila kilomita ya mraba. Lakini eneo linalofaa ndani ya mbuga ni kilomita za mraba 1,382 tu ambazo ziko kwenye eneo la nusu ya juu ya mbuga ambako ndiko zilizoko huduma zote na njia zote za porini zinapewa kiwango cha vitanda 0.54 kwa kila kilomita ya mraba. Eneo linalofaa ndani ya Eneo la Hifadhi la Tarangire ni kilomita za mraba 257, bila ya kujumlisha LLWZ ambalo lina vitanda 0.35 kwa kila kilomita ya mraba, ambayo ni zaidi ya asilimia 50 ya eneo zima la Mbuga ya Taifa.

Vibao: Vibao vilivyopo ndani ya Eneo la Hifadhi vinaonyesha jinsi ya kufika kwenye sehemu za kuhudumia wageni tu. Hakuna vibao vinavyotoa maelezo ya aina ya shughuli zinazoruhusiwa, aina ya mazingira, mimea na wanyama.

Maeneo ya mandari na vituo vya uchunguzi: Kuna kituo cha uchunguzi kimoja tu kilichomo ndani ya Eneo la Hifadhi karibu na kilele cha Kilima cha Radilen. Kituo hiki hutumika wakati wa jioni na watu wanaopenda kupumzika nje wakati huo.

Roads: The Conservation Area is crisscrossed by a variety of tracks made mainly by hunters in the past. The main access and transit roads transect the northern section of the Conservation Area and, where these roads cross swampy areas', a braided road system has been created where vehicles have left the road for firmer ground during the rainy seasons. Movement south requires crossing the Tarangire River, a sand river during the dry season, at one of two points. Continuous work is involved in identifying roads for closure, upgrading and maintaining main roads and providing drainage.

1.5: Visitors' Experience

Visitor use activities are all designed to be low impact and to offer a variety of experiences that are not available in the Tanzanian National Parks. This includes:

- Night game driving which provides an opportunity to view nocturnal species.
- Walking safaris which provide an opportunity to view wildlife from a different perspective and look more closely at the often missed details of African flora and fauna.
- Fly camping which provides an opportunity to walk from camp to camp without the intrusions imposed on a visitor safaris experience by logistics of hauling baggage and camping equipment.

The exclusivity of experience offered to visitors in the Conservation Area is in direct contrast to the experience they will enjoy in the Tarangire National Park but will complement what is offered in the park. Tarangire National Park will remain an important destination for visitors to the conservation area for their daily game driving experience and it is anticipated that the proximity of the park will facilitate ready access for fee paying visitors.



Walking safari, Naitolia.
*Safari za mwendo wa kutembea kwa miguu,
Naitolia*

Barabara: Eneo la Hifadhi lina vijinjia vingi ilivytengenezwa na wawindaji wa zamani. Kuna njia kubwa zinapitika upande wa kaskazini wa Eneo la Hifadhi na, na pale ambapo barabara hizi zinavuka maeneo ya kinamasi, msokoto wa mfumo wa barabara umeundwa na magari ambayo yanakwepa matope na kupita juu ya sehemu zilizo ngumu na imara nyakati za mvua. Kwenda kusini kunahitaji kuvuka Mto Tarangire, ambao unajaa mchanga wakati wa kiangazi, ingalau kwenye sehemu mbili. Kazi inaendelea kuzitambua barabara za zinazohitaji kufungwa, kuendeleza na kutengeneza barabara kuu ikiwa ni pamoja na kuzitengeneza mifereji.

1.5: Wanachopitia Wageni

Shughuli za wageni zimeundwa zisiwe na athari kwenye mazingira na zitoe tajriba nyingi ambazo hazipatikani kwenye Mbuga za Hifadhi za Kitanzania. Nazo ni pamoja na:

- *Safari za usiku zinatoa fursa ya kuona aina za wanyamapor wa usiku.*
- *Safari za mwendo wa kutembea kwa miguu, ambazo zinatoa fursa za kuona wanyamapor kwenye mtazamo wa tofauti na kuwaona kwa karibu zaidi ili kuweza kuona na kuchunguza kwa utondoti mimea na wanyamapor wa bara la Afrika*
- *Upigaji kambi ndani ya mahema ambako kunatoa fursa ya kutembea kutoka kambi hadi kambi bila ya bughudha za kuhanagaika na ubeabajji wa mizigo na vifaa vya kupiga kambi.*

Shughuli hizi maalum wanazopatiwa wageni ndani ya Eneo la Hifadhi ni tofauti na zile zinazotolewa kwenye Mbuga ya Taifa ya Tarangire ingawa zitashamirishana. Mbuga ya Taifa ya Tarangire itabaki kuwa kikomo maalum cha wageni wa eneo la hifadhi kwa safari zao za kawaida za kuona wanyama na inadhaniwa ya kwamba ukaribu wa mbuga utarahisisha kupata wageni wanaolipa ada.

1.6: Establishment History

The Conservation Area had no permanent human settlement and was not used for livestock grazing due to the high concentration of tsetse flies found in the area. Only during severe droughts when all the surrounding grazing lands were overgrazed would the Maasai pastoralist be forced to use the Conservation Area for cattle grazing.

Large scale farming was started on the peripherals of the Conservation Area during the late seventies and early eighties. ‘The Steins Lease’ in the Lolkisale area was a farm of 381,000 acres (the Laigwanan (Olgoro) Farm) that was leased to one Herman Stein. Irregularities with this lease led to it being withdrawn in 1981 and Stein being compensated for development costs.

In the late eighties other smaller farms where cleared in areas to be found to the north on the eastern boundary of the Naitolia Concession Area and isolated farms near the Engorika Hills. It was only after farming was encouraged during the early nineties for economic reasons that some of these areas were opened up to large scale farming.

The Lolkisale Conservation Area was a joint proposal between a private sector group which had farming interests in the area and Lolkisale Village in 1994. It has been increased to the size it is now over the following years to incorporate areas of significance.

The Lolkisale Conservation Area was set aside by the Lolkisale Village Government with the full knowledge and agreement of the people of the eight sub-villages that comprise Lolkisale Village after extensive meetings were held to explain the concept and potential benefits of the LCA. These meetings were all documented. A meeting of the Ward Development Council was held on 20th December 2001, which acknowledged and agreed to the LCA management and zoning outline plan in recognition of the significant benefits that the LCA will bring to the Lolkisale community financially, developmentally and in terms of improved environmental management. A Management Plan for the Lolkisale Conservation Area was completed in June of 2001. On 1st February 2002 the Environment Committee and the Finance Committee of the Monduli District Council (MDC) approved the LCA Management and Zoning Plan and gave their authority for implementation of the activities outlined in the document.

1.6: Historia

Eneo la Hifadhi lilikuwa halina makazi ya kudumu ya binadamu na lilikuwa halitumiki kulisha mifugo kwa sababu ya uwangi wa ndorobo zilizojaa kwenye sehemu hiyo. Ni wakati wa vipindi vya kiangazi wakati maeneo yote ya malisho yaliyopo jirani yanakuwa yamefurika na mifugo ndiyo wafugaji wa Ki-Maasai walilazimika kulitumia Eneo la Hifadhi kulishia ng’ombe wao.

Kilimo cha biashara kilianza jirani na Eneo la Hifadhi kipindi cha miaka ya sabini na mwanzoni wa miaka ya themanini. ‘Mkataba wa Steins’ uliyokuwepo kwenye eneo la Lolkisale ulikuwa wa shamba lenye eneo la eka 381,000 [Shamba la Laigwanan (Olgoro)] ambalo lilipangishiwa kwa mtu aliyeitwa Herman Stein. Kanuni ziliikuwa hazikufuatwa kwenye mkataba huu na hivyo ulifunjwa mwaka 1981 na Stein alifidiwa gharama zake za uendelezaji.

Mwishoni mwa miaka ya themanini mashamba madogo madogo yalitayarishwa kwenye maeneo ya kaskazini mwa mpaka wa mashariki wa Eneo la Milki la Naitolia na mashamba yaliyokuwa kando karibu na Vilima vya Engorika. Ni baada tu ya kutilia mkazo kilimo mwanzoni wa miaka ya tisini, kwa sababu ya masuala ya kiuchumi ndiyo maeneo haya yakafunguliwa kutumika kwa kilimo cha biashara.

Eneo la Hifadhi la Lolkisale lilikuwa ni ubia kati ya kikundi cha watu kutoka sekta binafsi ambacho kili-kuwa na shughuli za kilimo kwenye eneo hilo na Kijiji cha Lolkisale mwaka 1994. Limeongezeka kufikia ukubwa uliopo sasa hivi na umaarufu kuto-kana na shughuli zake miaka yote hii.

Eneo la Hifadhi la Lolkisale lilitengwa na Mamlaka ya Serikali ya Kijiji cha Lolkisale baada ya ufahamu kamili na maafikiano ya wakazi wote wa vitongoji vinane vinavyounda Kijiji cha Lolkisale. Na hii ni baada ya mikutano mingi iliyo fanyika kwa madhumuni ya kuelezea dhana na faida za LCA. Mikutano yote hii ilithibitishwa kwa maandishi. Mkutano wa Halmashauri ya Maendeleo ya Kata uliofanyika tarehe 20 Desemba 2001, ulithibitisha na kukubali Mpango wa Usimamizi na Ugawanyaji wa LCA baada ya kutambua faida za kifedha, za kimaendeleo na za kuendeleza usimamizi wa mazingira zitakazofikia jamii ya Lolkisale. Mpango wa usimamizi wa Eneo la Hifadhi la Lolkisale ulikamilika mwezi Juni 2001. Tarehe 1 mwezi Februari Kamati ya Mazingira na Kamati ya Fedha za Halmashauri ya Wilaya ya Monduli (MDC) zilipitisha Mpango wa Usimamizi na Ugawanyaji wa LCA na kutoa idhini yao kwa utekelezaji wa shughuli zilizotajwa ndani ya maandishi.

The Naitolia Concession Area was established in 1996 with Makuyuni and Mswakini villages and a private sector partner. It was established to set up a community based conservation area; to provide an exclusive use area for Naitolia Camp; and to protect the Lemiyon plains and Naitolia floodplains.

The Makuyuni Elephant Dispersal Area was a direct response from a request from the Tarangire Elephant Project in 2001 to protect a wet season dispersal area for the northern sub population of the Tarangire elephants.

The Lolkisale Livestock and Wildlife Zone was identified in 2001 by the joint venture partners to provide a buffer zone for the Lolkisale Conservation Area and to set aside an area for traditional pastoralist activities without having constant threats from large scale land clearing and farming.

The Tarangire Conservation Area received endorsement from the office of the Vice President of Tanzania on the 30th August 2000.

Eneo la Milki ya Naitolia liliundwa mwaka 1996 na vijiji vya Makuyuni na Mswakini pamoja na mbia wa kutoka sekta binafsi. Liliundwa kwa madhumuni ya kuanzisha eneo la hifadhi litakalohusisha jamii; kutoa eneo maalum litakalotumika kama Kambi ya Naitolia; na kulinda kutunza uwanda wa Lemiyon na tambarare la Naitolia.

Eneo Tawanyishi la Tembo la Makuyuni limeitikia wito wa Mradi wa Tembo wa Tarangire wa mwaka 2001 wa kutunza eneo la kutawanyika kundi dogo la tembo wa kaskazini ya Tarangire nyakati za mvua.

Ukanda wa Mifugo na Wanyamapori wa Lolkisale uliundwa mwaka 2001 na wabia kwa madhumuni ya kuwa na ukanda wa kinga wa Eneo la Hifadhi la Lolkisale na kutenga sehemu ambayo shughuli za kijadi za wafugaji zitaendelea bila ya usumbufu uto-kanao na taratibu za mashamba makubwa ya bias-hara.

Eneo la Hifadhi la Tarangire liliidhinishwa na ofisi ya Makamu wa Raisi wa Tanzania tarehe 30 Agosti 2000.



Foundation meeting between Lolkisale Village Council, African Project Development Facility and private investors, 1996.

1.7: Plan Development

This Draft Management Plan was prepared by the Management Steering Committee of the Lolkisale Conservation Area with input from stakeholders and consultants, and takes into account existing information, reports and research findings that relate to the planning area. The local communities of Lolkisale, Makuyuni, Mswakini Juu and Naitolia are all involved with meetings held on a regular basis.

The strategies in the plan are guided by the Lolkisale Conservation Area Management and Zoning Plan, June 2001, and the Lolkisale Conservation Area Integrated Conservation Management Plan of February 2002.

1.7: Maendeleo ya Mpango

Mswadajaribio wa Muundo wa Usimamizi ultayariswa na Kamati ya Uendeshaji ya Eneo la Hifadhi la Lolkisale pamoja na mchango mkubwa kutoka kwa wadau na wataalamu, na ukizingatia taarifa zilizopo, ripoti na matokeo ya taftiti yanayohusu eneo la mradi. Kila wakati jamii za Lolkisale, Makuyuni, Mswakini Juu na Naitolia zilihusishwa kwenye mikutano iliyofanyika.

Mikakati ya mpango inaongozwa na Mpango wa Usimamizi na Ugawanyaji wa LCA wa mwaka Juni 2001, na Mpango wa Usimamizi wa Eneo la Hifadhi Lolkisale wa Februari 2002.

Information on the planning process was distributed through a range of processes including community and stakeholder meetings. In addition to community meetings, interviews and meetings were held with a range of interest groups, government agencies and local government.

As a public document, the plan establishes a strategic guide for the future management of the Tarangire Conservation Area. It establishes how the Area's natural and cultural values will be protected and describes the services and facilities that will be provided to help visitors to enjoy, appreciate and understand them in ways that are consistent with this protection. The plan also serves to inform and encourage cooperative land management and participation in community based programs between stakeholders and managers of adjacent areas.

The publication of this draft plan offers the community an opportunity for further involvement in planning the future management of these important areas. All submissions on the draft plan will be carefully considered and taken into account in preparing the final management plan. Where appropriate, comments may be discussed further with stakeholders.

When approved by the local and district governments, the final management plan will guide future management of the Tarangire Conservation Area.

Taarifa za mfumo wa mipango zilienezwa kwa kupitia mpangilio wa mifumo ikiwa ni pamoja na mikutano ya jamii, na wadau. Pamoja na mikutano ya jamii, mahojiano na mikutano ilifanywa na makundi yanayohusika, mashirika ya serikali na mamlaka serikali za mitaa.

Ikiwa ni waraka wa umma, mpango huu unaonyesha mwongozo wa mkakati wa usimamizi wa baadaye wa Eneo la Hifadhi la Tarangire. Unaonyesha jinsi maadili ya asilia na ya kijadi yatakavyolindwa na kuelezea huduma na vituo kwa madhumuni ya burudani ya wageni, kuthamini na kuelewa maadili hayo kulingana na hifadhi. Mpango huu pia utatoa taarifa na kuhamasisha usimamizi wa ardhi wa ushirikiano na ushirikishwaji kwenye miradi ya kijamii itakayoundwa na wadau na wasimamizi kwenye maeneo ya jirani.

Uchapishaji wa mswadajaribio wa mpango huu una-toa fursa kwa jamii kushiriki zaidi kwenye upangaji wa usimamizi wa baadaye wa maeneo haya. Mare-jesho yote ya mswadajaribio yataangaliwa vizuri na kuzingatiwa kwenye utayarishaji na mpango wa usi-mamizi wa mwisho. Itakapobidi, mahojiano yanaweza kuendelea zaidi na wadau.

Baada ya kupitishwa na mamlaka za mitaa na za wilaya, mpango wa usimamizi wa mwisho utaelekeza usimamizi wa baadaye wa Eneo la Hifadhi la Tarangire.

2.0 Basis *Msingi*

2.0: Conservation Area Purpose and Objectives

The overall vision for the Tarangire Conservation Area is to develop a criterion for conservation and sustainable use practices where communities and the private sector are engaged in a joint venture partnership. This project has the potential to directly and positively address the recognized issues of biodiversity conservation, poverty alleviation and sustainable development, all at the community level.

The project has provided an opportunity to develop a model for private sector and community engagement that closely follows policy level initiatives made by the Tanzanian Government. These initiatives recognize the need for greater engagement at the community level as custodians of their country's natural resource wealth.

2.1: Purpose

The area bounded by the Tarangire Conservation Area is comprised of a variety of habitats of significant importance to the greater Tarangire ecosystem. Tarangire National Park itself represents only 13% of this ecosystem, with 80% of the large mammal population leaving its environs for six months of the year.

It is recognized that the health of the greater Tarangire ecosystem is vital to the long term survival of Tarangire National Park.

The Tarangire Conservation Area contains large wetland habitats that are utilized by a significant number of the Tarangire National Parks 2,800 strong elephant population during the rainy season. In addition, other mammal populations, such as wildebeest, zebra and buffalo, also transit the Conservation Area on a seasonal basis.

The Conservation Area also protects the main watershed for the Tarangire River system in the northern part of the park.

The purpose of the Conservation Area is to actively protect these important habitats otherwise threatened by farming and other intrusive activities performed by members of local communities pursuing the limited revenue choices previously available to them.

2.0: Madhumuni na Malengo ya Eneo la Hifadhi

Dhamira ya jumla ya Eneo la Hifadhi la Tarangire ni kuendeleza vigezo vya hifadhi na kutumia mbinu endelevu ambazo jamii na sekta ya binafsi ziweze kuwa na ubia wa kufanya shughuli pamoja. Mradi huu una uelekeo wa kujishughulisha na masuala yanayotambulika ya hifadhi ya anuwai ya viumbe hai, upunguzaji umasikini na maendeleo endelevu, vyote hivi vitafanyika kwenye kiwango cha jamii.

Mradi umetoa fursa ya kuunda mfano wa shughuli za sekta binafsi na jamii kufuatana na ari za sera zili-zoundwa na serikali ya Tanzania. Ari hizi zinatambua haja ya kuhusisha wanajamii wakiwa ndiyo watunzaji wa hazina ya rasilimali ya asili ya nchi yao.

2.1: Madhumuni

Eneo linalozunguka Eneo la Hifadhi ya Tarangire linajumuisha makazi tofauti yenye umuhimu mkubwa kwenye mfumo wa ekosistim ya Tarangire Kuu. Mbuga ya Taifa ya Tarangire yenye inawakilisha asilimia 13% tu ya mfumo wa ekosistim hii, pamoja na asilimia 80% ya idadi kubwa ya wanyama wakubwa wanaohama kutoka kwenye mazingira yake kwa kipindi cha miezi sita kila mwaka.

Inatbulika ya kwamba afya njema ya mfumo wa wanyama ya Tarangire Kuu ni muhimu kwa ustawi endelevu / wa muda mrefu wa Mbuga ya Taifa ya Tarangire.

Eneo la Hifadhi la Tarangire lina sehemu nydingi na kubwa zenye majimaji ambazo hutumika na idadi ya tembo wapatao 2,800 wa Mbuga za Taifa za Tarangire wakati wa majira ya mvua. Zaidi ya hapo, kwenye majira fulani wanyama wengine kama kongoni, punda milia na nyati pia hupita kwenye eneo la hifadhi.

Eneo la Hifadhi pia linalinda mwinuko wa kumwaga maji kwenye mfumo wa Mto Tarangire upande wa kaskazini wa mbuga.

Madhumuni ya Eneo la Hifadhi ni kulinda sehemu hizi maalum la sivyo zitaathiriwa na shughuli za kilimo pamoja na nyininge zinazofanywa na wanavijiji wanaosaka njia za kujipatia riziki walizokuwa wamezizo-ea huko awali.

2.2: Objectives

Community based natural resource management has been a Tanzanian Government policy level objective for several years. The Mswakini, Makuyuni, Naitolia and Lolkisale communities have set aside areas adjacent to Tarangire National Park for conservation. The Tarangire Conservation Area objectives are to actively increase community involvement in the management of natural resources and to establish an economically viable enterprise generating revenues for the support of village level development activities. These objectives run parallel to and in harmony with the goal to develop a sustainable management scenario ensuring the preservation of the wet season habitats crucial to the greater Tarangire ecosystem.

2.3: Evidence of Past Use

Prior to the 1950s, the Tarangire area had limited human settlement due to the high concentration of tsetse flies. The Maasai are the predominant tribe, although evidence would suggest that their presence in the Tarangire area was from the late 18th century or early 19th century. The Maasai southward migration in Tanzania was halted by the Wahehe in about 1830.

The Barbaig, nomadic pastoralists and Mbugwe, traditionally hunters and agro-pastoralists are thought to have been in the area before the migration south of the Maasai. Evidence of traditional honey gatherers exist in the many wooden pegs found in the larger baobabs in the Tarangire Conservation Area. The pegs are driven into the soft bark of the baobabs in order for the honey gatherers to climb the tree when gathering honey from the bee's nest. Before climbing the tree the bees are sedated by lighting a fire on the ground below the nest and letting the smoke engulf it.



2.2: Malengo

Usimamizi wa rasilimali ya asili na jamii umekuwa lengo la kiwango cha sera ya serikali ya Tanzania kwa muda wa miaka mingi. Jamii za Mswakini, Makuyuni, Naitolia na Lolkisale zimetenga kando maeneo jirani na Mbuga ya Taifa ya Hifadhi Tarangire, kwa madhumuni ya masuala ya hifadhi. Malengo ya Eneo la Hifadhi la Tarangire ni kuongeza kiwango cha ushirikishwaji wa jamii kwenye usimamizi wa rasilimali ya asili na kuanzisha shughuli zitakazojitegemea na kuwa chanzo cha mapato yatakayohimili shughuli za maendeleo ya vijiji. Malengo haya yanaenda sambamba na lengo la kuendeleza usimamizi endelevu wa kuhakikisha hifadhi ya sehemu / makazi ya maji maji ya misimu ambayo ni muhimu kwa mfumo wa wanyama ya Tarangire Kuu.

2.3: Ushahidi wa Matumizi ya Zamani

Kabla ya miaka ya 1950, eneo la Tarangire lilikuwa na makazi machache ya binadamu kutokana na uwingu wa ndorobo. WaMaasai ndiyo kabila kuu, ingawa ushahidi unaonyesha ya kwamba kuwepo kwao kwenye eneo la Tarangire kulianza mwishoni mwa karne ya 18 au mwanzoni mwa ya 19. Uhamiaji wa Wamaasai kuelekea kusini ulisimamishwa na Wahehe mnamo mwaka 1830.

Wabarbaig, wafugaji wanaohamahama na WaMbugwe, wenyе asili ya kuwinda, kulima na kufuga inafiki-riwa ya kwamba walikuwa kwenye eneo hilo kabla ya uhamiaji kuelekea kusini wa WaMaasai. Ushahidi wa wakusanyaji wa asali wa jadi unaonekana kwenye vigingi vya mbao vilivypigiliwa kwenye miti ya mibuyu iliyomo ndani ya Eneo la Hifadhi la Tarangire. Vigingi viligongomewa kwenye magamba laini ya mibuyu kwa madhumuni ya kupanda miti wakati wa ukusanyaji wa asali kutoka kwenye mizinga ya nyuki. Kabla ya kupanda miti nyuki walitulizwa kwa kuwashamoto chini ya mzinga na kuachia moshi uuizingire.

2.4 Scaled Conservation Values of the Tarangire Ecosystem

Vipimo vya Thamani umuhimu wa Ekosistim ya Tarangire

No. Na.	Value Category <i>Aina ya Thamani</i>	Value Constituents <i>Thamani moja moja</i>
1	Global/ <i>Ya jumla</i>	<p>3,000 Elephant, 4,500 buffalo, 10,000 (est.) wildebeest and 25,000 (est.) zebra as mammal species; <i>Tembo 3,000, Nyati 4,500, (inakisiwa) Kongoni 10,000 na (inakisiwa) punda milia 25,000;</i> Lesser Kestrel & Taita falcon as species listed as ‘vulnerable’ under the category of globally threatened bird species; <i>Ndege wa Lesser Kestrel & Taita falcon wameorodheshwa kuwa ‘siyo salama’ chini ya fungu la aina ya ndege walio hatarini;</i> Riverine woodlands, acacia tortilis parklands, wetland and seasonal flood plains, acacia-commiphora woodlands, riverine grasslands, combretum-dalbergia woodlands, acacia drepanolobium woodlands, rocky hilltop vegetation, deep gully vegetation and grasslands with scattered baobabs as communities/systems; <i>Sehemu misitu iliyoko kandokando ya mito, misitu ya miti ya acacia tortilis, maeneo ya maji maji na tambarare zinazofurika nyakati za misimu, misitu ya acacia-commiphora, majani yaotayo kandokando ya mito, misitu ya combretum-dalbergia, misitu ya acacia drepanolobium, uoto wa juu ya vilima kwenye mawe, uoto wa kwenye makorongo na ukanda wa mbuga pamoja na mtawanyiko wa mibuyu ikiwa kama jamii / mifumo;</i> Wide habitat variety supporting diverse species range, including endangered, threatened, endemic and rare species of exceptional value; <i>Sehemu kubwa inayohimili aina nyangi na tofauti, pamoja na zilizokuwa hatarini, zilizo-athirika, zenye magonjwa na aina za pekee zenye thamani maalum;</i> 16 acacia species in acacia habitat - unusually high when compared to other African acacia habitats; <i>Aina 16 ya miti ya acacia kwenye sehemu ya acacia tu – siyo kawaida ukilinganisha na sehemu nyingine za acacia za Kiafrika;</i> Seasonal large mammal migration driven by dry season river system as ecosystem type; <i>Uhamaji wa wanyama wakubwa unaosababishwa na ukaukaji wa msimu wa mfumo wa mito;</i> Population of African Hunting Dogs; <i>Idadi ya mbwa wa kuwinda wa Kiafrika;</i> Historical resource use pattern – Maasai pastoralism - as an existing but threatened sustainable use. <i>Utaratibu wa matumizi ya rasilimali wa kihistoria – ufgaji wa WaMaasai – ndiyo unaotumika lakini uendelevu wake uko hatarini.</i></p>
2	National <i>Kitaifa</i>	<p>Second only to the Serengeti ecosystem for the highest dry season concentrations of wildlife in any area of Tanzania; <i>Ya pili tu kutoka mfumo wa wanyama ya Serengeti kuwa na idadi kubwa za wanyamapori nyakati za ukame ukilinganisha na sehemu yeyote ile nchini Tanzania;</i> Biggest population of elephant in northern Tanzania; <i>Idadi kubwa kabisa ya tembo kaskazini mwa Tanzania;</i> 15 species of antelopes and second only to Serengeti for antelope conservation; <i>Aina 15 za paa na ya pili tu kutoka Serengeti kwa kutunza / kuhifadhi paa;</i> Species diversity consequent to being southern extremity of the distribution of many East African mammal species e.g. gerenuk, lesser kudu & oryx; <i>Tofauti ya aina kutokana na kuwa kusini kabisa mwa utawanyisho wa aina nyangi za wanyama wa Afrika Mashariki k.m. gerenuk, lesser kudu & oryx;</i> Highest recorded variety of breeding bird species in Tanzania; <i>Aina kubwa ya ndege tofauti wanaozaliana iliyorekodiwa nchini Tanzania;</i> Only known breeding location for Taita Falcon in Tanzania; <i>Sehemu pekee Tanzania inayojulikana ya kuzaliana aina ya ndege Taita Falcon;</i> Significant wetland & hydrological regime supporting variety and abundance of flora, fauna and avifauna; <i>Maeneo ya maji maji ya maana na mifumo ya maji inayohimili aina tofauti na nyangi za mimea, wanyama na avifauna;</i> Unique character ecosystem from the mosaic of habitats and land forms; <i>Sifa pekee ya mfumo wa wanyama kutokana na mifumo ya makazi na ardhi;</i></p>
3	Regional <i>Kimkoa</i>	<p>Resource source for regional towns – charcoal, livestock, agricultural produce; <i>Vyanzo vya rasilimali zitumikazo mijini – mkaa, mifugo, mazao ya kilimo;</i> Recreational value to regional and urban centres; <i>Thamani ya burudani kwa vituo vya mkoa na mijini;</i> Economic value to tourist industry; <i>Thamani ya kiuchumi kwa biashara ya utalii;</i></p>
4	Local <i>Eneo la Hifadhi</i>	<p>Agriculture; Fuel wood; Charcoal; Bush meat; Water; Livestock Grazing; Medicinal plants; Building materials; Honey; Fish; <i>Kilimo; kuni; mkaa; nyama ya pori; maji; malisho ya mifugo; mimea ya dawa; vifaa vya ujenzi; asali; samaki;</i></p>

2.5: Conservation Values Specific to the Tarangire Conservation Area

- Dispersal area for significant sub population of elephant.
- Dispersal area for significant population of buffalo.
- Seasonal migration corridor for zebra moving north and west towards Manyara and Natron, and for zebra and wildebeest moving from and to the two main focal grazing and breeding areas (Enguisero Oldupai and Simanjiro).
- Seasonal migration route and potential breeding area for African Hunting dog.
- Wetland area (Gosuwa Swamp) providing important habitat and extensive source of water into the dry season.
- Important catchment area for the Tarangire River.
- Abundance of a wide diversity of flora, fauna and avifauna, many endangered, threatened, endemic and rare species of exceptional value, within high diversity habitat.
- Varied vegetation mosaic together with spectacular views and scenery.
- Recreation and education values.
- Emergency water and grazing resource for livestock.



Baobab (*adansonia digitata*) with epiphytic leopard orchid (*ansellia africanus*) on the northern Naitolia floodplains.

*Mbuyu (*adansonia digitata*) na epiphytic leopard orchid (*ansellia africanus*) upande wa tambarare ya kaskazini ya Naitolia.*

2.5: *Thamani za Hifadhi maalum kwa Eneo la Hifadhi la Tarangire.*

- *Eneo tawanyishi la idadi kubwa ya tembo,*
- *Eneo tawanyishi la idadi kubwa ya nyati,*
- *Ushoroba wa msimu wa uhamaji wa punda milia wanaohama kutoka kaskazini na magharibi kuelekeea Manyara na Natron, na kwa punda milia na kongoni wanaohama kati ya maeneo makubwa mawili ya malisho na ya kuzalia (Enguisero Oldupai na Simanjiro),*
- *Njia ya uhamaji ya msimu na ya kuzalia ya mbwa wa uwindaji wa Kiafrika,*
- *Sehemu ya maji maji (Kinamasi la Gosuwa) ambalo ni sehemu muhimu ya makazi na chanzo cha upatikanaji wa maji wakati wa kiangazi,*
- *Sehemu maalum ya kukinga maji ya mto Tarangire,*
- *Wingi wa maua tofauti, mimea tofauti na avifauna tofauti, nyingi ambazo ziko hatarini, zinaathirika, zina magonjwa na ni haba zenye thamani ya pekee, ndani ya makazi yenye viumbe tofauti,*
- *Uoto wa aina mbalimbali uliyokuwa na mpangilio unaoleta mandhari na sehemu za kustaajabisha,*
- *Thamani za burudani na za elimu,*
- *Rasilimali ya dharura ya maji na malisho ya mifugo.*

3.0: Strategic Directions *Mielekeo ya Kimkakati*

3.1: Vision

A future visitor to the Tarangire Conservation Area finds examples of intricate and diverse East African ecosystems, free from significant human impacts.

The Conservation Area provides a variety of visitor experiences, enabling the future sustainability of the Conservation Area, complimenting the traditional game viewing aspects within the adjacent park.

The Conservation Area is well protected through management which is strongly supported by the local communities, and provides a model for adjacent and neighbouring communities for replication over the broader Tarangire ecosystem.

The Conservation Area provides a revenue path for the surrounding communities as an alternative to more invasive and non sustainable options.

Programs are developed with the local communities to further broaden the visitor experience utilizing cultural and historical aspects of the broader community lands.

Ongoing research programs and monitoring continue to make new discoveries and establish a scientific basis for management.

3.2: Zoning

A management zoning scheme is used to define areas where various types and levels of use are appropriate.

The management zoning system was determined with respect to the following points:

- Environmental boundaries, constraints imposed by the landscape, physical features and ecological factors.
- Provision of a diverse range of appropriate visitor experiences and visitor use levels.
- Defining the type of activities, kind and type of development in each zone.
- Identification of important dispersal areas and wildlife movement corridors.
- View scapes from lodges.
- Buffer and border areas.
- Infrastructure such as Rangers posts, roads and fly camp areas.
- Elimination of uses and activities that damage the LCA resources.

3.1: Dhamira

Mgeni wa baadaye wa Eneo la Hifadhi la Tarangire atakuta mifano ya wanyama Afrika ya Mashariki inayotatanisha na iliyotofauti, na ambayo haina athari kubwa za binadamu

Eneo la Hifadhi linampa mgeni fursa ya kuona na kupitia mambo mengi, na hivyo kuwezesha uendelevu wa baadaye wa hilo Eneo, pamoja na kushamirisha jadi ya uangaliaji wa wanyamapori kwenye mbuga ya jirani.

Eneo la Hifadhi linatunzwa na kulindwa vizuri kuto-kana na usimamizi ambao unamiliwi na jamii za kienyeji, na kuwa mfano wa kuiga kwa jamii nyiningine ziishizo jirani ndani ya mfumo mkuu wa wanyama ya Tarangire.

Eneo la Hifadhi linatoa njia nyiningine ya mapato kwa jamii wanaolizunguka badala ya kufanya shughuli nyiningine vamizi na zisizo endelevu.

Miradi inaundwa pamoja na jamii za kienyeji kuende-lea kupanua tajriba ya mgeni kwa kutumia vigezo za kijadi na vya kihistoria ya sehemu hizo.

Miradi ya utafiti inaendelea na ufuatiliaji pia kuwa madhumuni ya kugundua vitu vipyta na kuunda usima-mizi wenye msingi wa kisayansi.

3.2: Ugawanyaji wa Maeneo

Utaratibu wa usimamizi wa ugawanyaji unatumika katika uwekaji wa mipaka kwenye maeneo kutokana na aina na viwango tofauti vinavyofaa.

Utaratibu wa usimamizi wa ugawanyaji umefanyika kwa kutumia vigezo vifuatavyo:

- *Mipaka ya mazingira, vikwazo ni kutokana na mandhari, maumbile ya ardhi na vipengele vya kiikolojia (uhusiano wa viumbe na mazingira).*
- *Utoaji tajriba za aina nyngi zinazofaa na usimamizi wa viwango vya matumizi kwa wageni.*
- *Kuelezea aina ya shughuli, na jinsi ya kuendeleza kila mradi iliyomo kwenye kila sehemu iliyogawiwa.*
- *Utambuzi wa maeneo tawanyishi na mishoroba ya mwendo ya wanyamapori*
- *Mandhari kutokana kwenye nyumba za kupanga wageni*
- *BMaeneo ya kinga na mipaka,*
- *Maeneo yaliyotengwa kwa kupita.*
- *Miundo mbinu kama vituo vya wahifadhi, barabara na maeneo ya kambi za mahema ya maturubai.*
- *Uachaji wa matumizi na shughuli zinazoharibu rasi-limali za LCA.*

The draft zoning plan has been prepared using satellite imagery, the Survey Ordinance 1: 50000 scale maps, wildlife distribution, wetlands and floodplains, migration corridors and field reconnaissance. See figure 2.

Whilst planning the zoning system a number of factors are considered such as Limits of Acceptable Use, infrastructure and facilities, accommodation type and number and permitted activities.

Category 1: General Access Zone

This zone will accommodate the all weather road and river crossing infrastructure that is to provide access to Boundary Hill Lodge and Tarangire Treetops, as well as transit traffic through to Lolkisale, Mswakini and Loiborsoit villages.

The zone will extend for 500 metres on either side from the centre point of the road, and no off-road driving will be permitted. Within this zone will also be located the ranger posts, entrance gates, visitor centre and all directional signage.

Category 2: Tourist Facilities Exclusive Use Zones

Tarangire Treetops

This zone has been identified for exclusive use of visitors utilizing Tarangire Treetops for night drives, walking safaris and game viewing. The area encompasses a range of habitats from riverine forest, dry evergreen forest, low woodland and grasslands ensuring a diverse range of visitor experience. Utilizing satellite images and field investigations a conceptual plan has been designed of the road infrastructure which has been proposed by the steering committee in the TT Exclusive Use Zone, with night drives and game viewing in two locations to ensure that Limits of Acceptable Use are observed. The actual road placement will take into consideration local ecological affects such as contours, seasonal swamps and water courses at a local level.

An observation and picnic point has been identified at Poachers Hill just to the east of Tarangire Treetops overlooking the conservation area to the north towards Kilimanjaro and Mt Meru.

Mswadajaribio wa mpango wa ugawanyaji umetayarishwa kwa kutumia picha za setilaiti, Sheria ya Urimaji wa Ardhi, ramani za vipimo 1: 50000, mgao wa wanyamapori, maeneo ya maji maji na tambarare za mafuriko, mishorobo ya uhamaji na ukaguzi wa mbuga. Angalia Kielelezo cha 2.

Wakati wa kupanga mfumo wa ugawanyaji, vigezo vingi vinaangaliwa kama Viwango vya Kukubalika vya Matumizi, miundo mbinu na huduma, aina na idadi ya sehemu za kupangisha na shughuli zinazokubalika.

Aina ya 1: Kanda ya kuingia wote

Kanda hii itakuwa na miundo mbinu wa barabara za majira ya hewa za aina yote na uvukaji wa mito ambaa utawafikisha watu kwenye nyumba za wageni za Boundary Hill na Tarangire Treetops, pamoja na kuhudumia msururu utakaopita kuelekea vijiji vya Lolkisale, Mswakini na Loiborsoit.

Kanda hii itatanda juu ya mita 500 kila upande kutoka ncha ya katikati ya barabara. Kuendesha magari nje ya sehemu ya barabara hakutaruhuswa. Ndani ya kanda hii kutakuwa na vituo vya wahifadhi, milango mikuu ya kuingilia, kituo cha wageni na vibao vyenye alama za maelekezo.

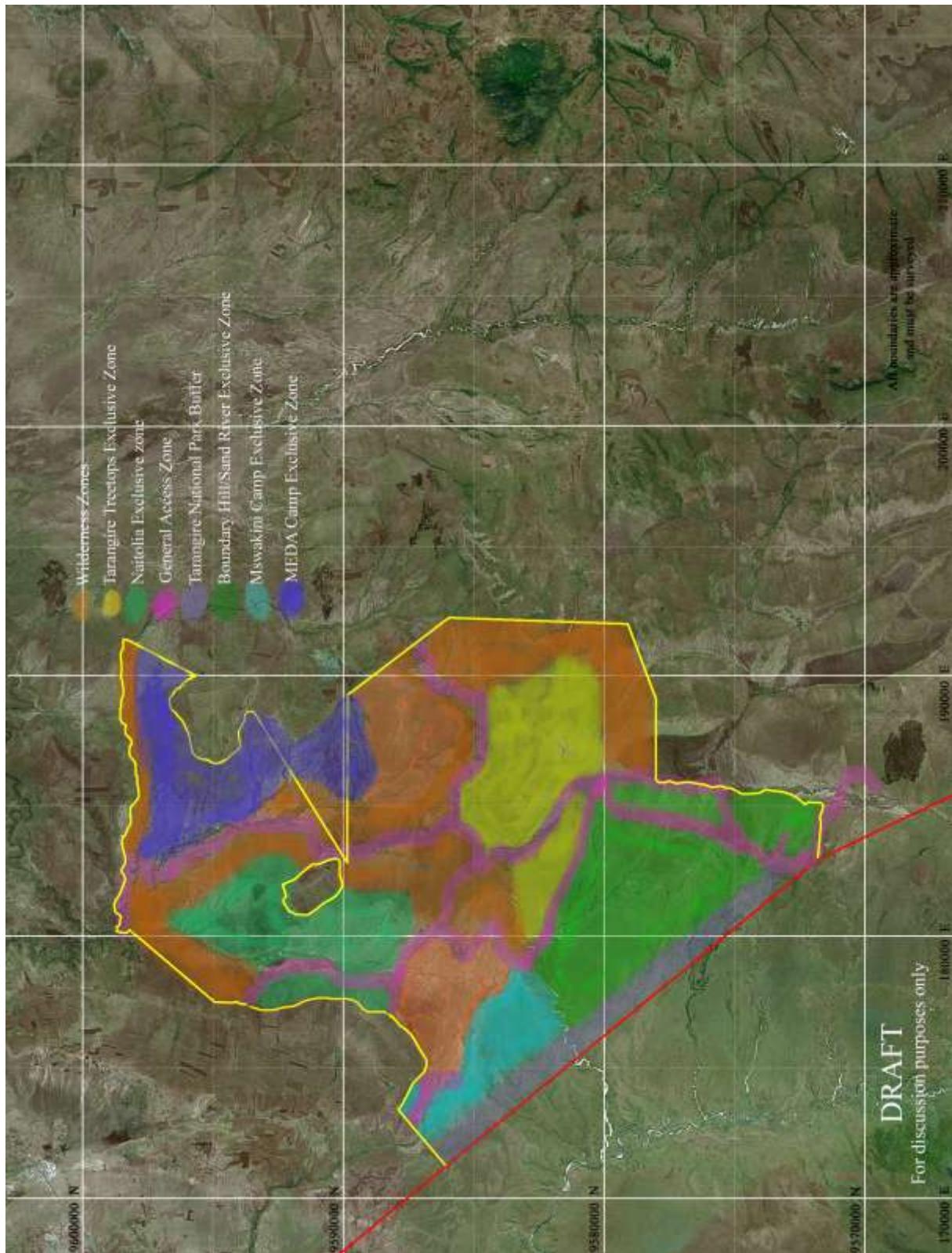
Aina ya Pili: Kanda zilizotengwa kwa Huduma za Watalii tu

Tarangire Treetops

Kanda hii imetengwa kwa matumizi ya pekee ya wageni watakaokuwa Tarangire Treetops kwa madhumuni ya safari zao za usiku, safari za kutembea kwa miguu na kwa kuangalia wanyamapori. Eneo hili linajumuisha makazi mengi na tofauti kuanzia pori ambalo liko kando kando ya mto, pori kavu lisilokauka, pori la sehemu tambarare na ukanda wa mbuga ulifunikwa na nyasi. Na hii ni kwa madhumuni ya kuhakikisha tajriba pana ya wageni. Kwa kutumia picha za setilaiti na uchunguzi wa mbuga mpango kabambe umeundwa wa miundo mbinu wa barabara ambaa umependekezwa kwa kamati kuu inayohusu Matumizi ya Pekee ya Kanda ya TT, pamoja na safari za usiku na uangaliaji wa wanyamapori kutoka sehemu mbili kufuatana na Viwango vya Matumizi Vinavyokubalika. Ujenzi wa barabara utaweka maanani hali ya halisi ya maeneo kama vile kontua, vinamasi vya misimu na njia za maji zilizopo.

Sehemu ya uchunguzi na mandari imetengwa kwenye kilima cha Poachers mashariki ya Tarangire Treetops ambako pia milima Kilimanjaro na Meru inaonekana kutoka kaskazini ya eneo la hifadhi

Figure 2: Tarangire Conservation Area Management Zones
Kielelezo cha 2: Kanda za usimamizi za Eneo la Hifadhi la Tarangire



Boundary Hill/Sand River Exclusive Use Zone

The Boundary Hill/Sand River Exclusive Use Zone has tentatively been designated north along the Boundary Hill ridge and encompassing the dry woodland and evergreen forest extending to the Gosuwa swamp in the east, and towards the Sand River in the west with the south east boundary being the Tarangire National Park buffer zone.

Naitolia Exclusive Use Zone

The Naitolia Exclusive Use Zone is bounded to the west by the Naitolia Concession Area eastern boundary; extends to the east to the approximate ridge zone running north - south and south towards the end of the Naitolia Floodplains.

MEDA & Mswakini Exclusive Use Zones

These two zones have been tentatively designated to allow for the development of two small semi permanent facilities in each of area to meet demands from villages to ensure equitable sharing of stakeholder revenue.

Category 3: Buffer Zone

One area has been identified as a buffer zone within the TCA.

The Tarangire National Park Buffer zone located south of the Sand River and provides protection for the National Park boundary along its entire length where it is shared with the TCA and is approximately one kilometre wide. This area takes in the most western tributary of the Tarangire River and undulating woodland habitat which makes up most of this zone. This area will need to be patrolled by rangers and the possibility of utilizing the area along the river courses for wilderness experiences such as walking and fly camping still needs to be addressed as well as road infrastructure required for fire management and ranger patrols.

Category 4: Wilderness Zones

A number of areas have been identified as walking and fly camping zones. These areas have been chosen either to protect sensitive habitats such as the Lemiyon plains around Radilen Hill or as buffer zones adjacent to community lands.

Category 5: Lodge 100 acres Lease Zone

Tarangire Treetops and Boundary Hill Lodge are built within 100 acre plots leased to each respective company specifically for the placement and construction of lodges and associated support services. These plots are independent of the TCA Zone plan in the fact that they are bound by specific contractual obligations outlined in the lease documentation.

Ukanda wa Matumizi ya Pekee wa Boundary Hill / Sand River

Ukanda wa Matumizi ya Pekee ya Boundary Hill / Sand River umepangwa kuwa kaskazini mwa mgongo wa Boundary Hill na ujumuushe pori kavu na lile lisilokauka linalotanda hadi Kinamasi cha Gosuwa upande wa mashariki, na kuelekea Sand River upande wa magharibi na mpaka wa kusini mashariki ni ukanda wa kingo ya Mbuga ya Taifa ya Tarangire.

Ukanda wa Matumizi ya Pekee ya Naitolia

Ukanda wa Matumizi ya Pekee ya Naitolia umepakana na mpaka wa mashariki wa Eneo la Milki ya Naitolia; unatanda mashariki hadi ukanda wa mgongo wa kas-kazini hadi kusini kuelekea mwisho wa tambarare ya mafuriko ya Naitolia

Ukanda wa Matumizi ya Pekee ya MEDA & Mswakini

Hizi kanda mbili zimepangwa kuruhusu maendeleo ya huduma ndogo mbili zisizo za kudumu kwenye kila eneo kwa madhumuni ya kukidhi mahitaji ya kutoka vijijini ili kuhakikisha ugawanaji sawa wa mapato ya wadau.

Aina ya 3: Ukanda wa Kinga

Sehemu moja imetambulika kama ukanda wa kinga ndani ya TCA.

Ukanda wa kinga wa Mbuga ya Taifa ya Tarangire uko kusini mwa Mto wa Sand na unatoa ulinzi kwa mpaka mzima wa Mbuga ya Taifa ambako unashirikiana na TCA na una upana wa takriban kilimita moja. Sehemu kubwa ya eneo hili ni ingilio la magharibi la Mto wa Tarangire na pori lenye umbo miinuko na makorongo. Eneo hili litahitaji kulindwa na wahifadhi. Uwezekano wa kutumia mto na maeneo yake kwa madhumuni ya tajiriba kama za kutembea na kupiga kambi za maturubai bado utahitaji kuangaliwa zaidi ikiwa ni pamoja na miundo mbinu ya barabara itakayohitajika kwa usimamizi wa moto na ulinzi wa doria.

Aina ya 4: Kanda za Pori / Nyika

Sehemu nyingi zimetambulika kama kanda za kutembea na za kupiga kambi. Maeneo haya yamechaguliwa ama kulinda makazi yanayoweza kuathirika upesi kama yale ya uwanda wa Lemiyon plains kandokando ya Kilima cha Radilen au kuwa kanda za kingo jirani na ardhi ya jamii.

Aina ya 5: Kanda ya ekari 100 za Kukodisha

Huduma za Tarangire Treetops na Boundary Hill zimejengwa juu ya viwanja vyenye ekari 100 vilivypangishwa / kodishwa kwa kila kampuni kwa madhumuni ya ujenzi wa huduma za hoteli na huduma nyingine zinazohusiana. Viwanja hivi havihuiani na mpango wa Kanda wa TCA Zone kwa sababu vina mikataba maalum ambayo imeandikwa kwenye hati za upangishaji.

3.3: Management directions

Major management directions for the Conservation Area are outlined below:

Natural values conservation.

- Natural processes, including competition, predation, recruitment and disturbance, will be protected to maximise overall benefit to biodiversity of the Tarangire ecosystem in the conservation area.
- Identified threats to the conservation area will be minimised through addressing the outcomes of ongoing monitoring and risk assessment, and, where feasible, complementary adjacent community lands.
- Hunting, illegal charcoal cutting and poaching within the Conservation Area to be rigorously controlled by well trained and motivated village game scouts and rangers.
- Research and monitoring to improve the scientific basis for management, including baseline data collection, ecosystem habitat mapping and threat assessment, will be undertaken through collaborative research links.
- The landscape values of the Tarangire Conservation Area will be protected from inappropriate development and other threats.
- Adopt and enforce a policy of Environmental Impact Statements on all existing and future tourist developments, lodges and camps.

Cultural values conservation

The strong cultural connections between the Tarangire environment and the local communities will be respected and maintained.

- The traditional owners' cultural rights in the land and water will be reflected in the management of the conservation area, specifically grazing and water rights during dry seasons.
- Encouragement of a cultural and historical tourism program in the villages surrounding the conservation area.
- Research into the indigenous and historic cultural heritage of the planning area will be encouraged and supported as appropriate. Establishing if any sites of cultural significance exist in or near the conservation area of the traditional communities, the Maasai, Barbaig and

3.3: Mielekeo ya Usimamizi:

Mielekeo mikubwa ya usimamizi wa Eneo la Hifadhi imenorodheshwa hapo chini:

Thamani za kiasili za hifadhi

Mifumo ya kiasili, ikiwa ni pamoja na ushindani, uwindaji, uandikishaji na usumbufu, italindwa kwa madhumuni ya faida ya hali ya juu ya uhusiano wa viumbe na mazingira wa mfumo wa wanyama ya Tarangire ndani ya eneo la hifadhi.

Athari zitakazogundulika dhidi ya eneo la hifadhi zitapunguzwa kwa kupitia matokeo ya usimamizi / ufuutiliaji na tathmini ya hatari, na inapobidi kushamirisha ardhi za jamii jirani.

Uwindaji, uokaji wa mkaa na ujangili usio halali ndani ya Eneo la Hifadhi utadhibitiwa kikamilifu kwa kutumia wahifadhi na maskauti wa vijiji waliosomea kazi zao na wenye motisha wa kazi.

Utafiti na ufuutiliaji wa kuboresha msingi wa kisayansi wa usimamizi, pamoja na ukusanyaji wa taarifa, uwekaji kwenye ramani makazi ya mfumo wa wanyama na tathmini ya hatari, vitafanya kwa ushirikiano wa sehemu tofauti.

Thamani ya mandhari ya Eneo la Hifadhi la Tarangire italindwa / itatunzwa kikamilifu dhi-di ya maendeleo yasiyofaa na hatari nydingine.

Kukubali na kutekeleza sera ya Maeleo ya Athari za Kimazingira kwenye maendeleo yote ya utalii, hoteli na kambi, yaliyopo na ya baadaye.

Thamani za Kitamaduni za Hifadhi

Mahusiano imara yaliyopo kati ya mazingira ya Tarangire na jamii yataheshimiwa na kuendelezwa.

Haki za kitamaduni juu ya ardhi na maji zitingatiwa kwa makini kwenye usimamizi wa eneo la hifadhi, hasa kwenye masuala ya malishi na maji wakati wa majira ya kiangazi

Uhamasishaji wa mradi wa kitamaduni na kihistoria kwenye vijiji vinavyozunguka eneo la hifadhi.

Masuala ya utafiti wa urithi wa kitamaduni wa kienyeji na wa kihistoria wa eneo la mradi utahamasishwa na kumilikiwa kama ipasavyo. Kutunza na kuendeleza sehemu zilizo na umauruwa wa kitamaduni kwa jamii za kitamaduni

Mbugwe and to ensure their protection.

- Historic places within the conservation area and adjacent lands will be conserved by protecting them from damaging or inappropriate activities.

The conservation area visitor

- Visitors understanding and appreciation of the natural and cultural values of the conservation area and the adjacent community lands will be enhanced by a range of information services and interpretative information within the Conservation Area and other appropriate locations.
- Visitors' enjoyment will be enhanced by offering a range of activities unique to the area such as night drives, birding safaris and walking safaris.
- Visitors and operators will be encouraged to adopt minimum impact techniques.
- Visitors will have access to a range of lodges, permanent camps and fly camps, lookouts and walking opportunities to view the Tarangire Conservation Area.

Community awareness and involvement

- An awareness and understanding of the conservation area and its management, and a sense of custodianship, will be encouraged among local communities and visitors.
- Relationships will be further developed and maintained with people, groups and communities with strong connections with or interests in the park and sanctuary, as a basis for encouraging their appropriate participation in the planning area's management.
- Collaborative partnerships will be developed with relevant agencies to ensure ongoing compliance and future protection of the conservation area.
- A management strategy will be developed to ensure equitable distribution and accountability of revenue collected from tourist facilities amongst the communities with interests within the conservation area and with those on adjacent lands.

kama Wamaasai, Wabarbaig na Wambugwe zilizopo ndani au karibu ya eneo la hifadhi.

Sehemu za kihistoria ndani ya eneo la hifadhi na zilizopo kwenye ardhi za jirani zitahifadhiwa dhidi ya shughuli haribifu au zisizofaa.

Mgeni wa eneo la hifadhi

- Uwezo wa wageni kuelewa / kufahamu na kuthamini thamani za kiasili na za kitamaduni za eneo la hifadhi na ardhi za jamii jirani itaongezeka kutokana na anuwai ya huduma za taarifa na maelezo yatakayopatikana ndani ya Eneo la Hifadhi na sehemu nyine.
- Burudani ya wageni itaongezeka kuwa kuwapatisa aina tofauti za shughuli maalum kama vile safari za usiku, safari za kuangalia ndege na safari za kutembea kwa miguu.
- Wageni na waongoza safari za wageni watahamisishwa kutumia mbinu ambazo hazitaharibu mazingira.
- Wageni wataweza kutumia aina tofauti ya huduma za mahoteli, kambi za kudumu na za kupiga maturubai, wataweza kuwa na sehemu za kulinda na fursa za kutembea kwa miguu kuliangalia Eneo la Hifadhi la Tarangire.

Kutambua na Kuhusisha Jamii

- Hali ya kulitambua na kulifahamu eneo la hifadhi na usimamizi wake na hali ya kuwa watunzaji, itahamasishwa kwa jamii na wageni.
- Mahusiano yataendelea kuundwa na kuendelezwa na watu, vikundi na jamii zenye mahusiano imara na / au yanayohusu masuala ya mbuga na hifadhi, ikiwa kama msingi wa kuhamasisha ushirikishwaji wao kwenye kupanga jinsi ya kusimamia eneo.
- Ubia shirikishi utaundwa na mawakala husika ili kuhakikisha ufuutiliaji wa makubaliano na ulinzi wa baadaye wa eneo la hifadhi
- Mkakati wa usimamizi utaundwa kuhakikisha ugawaji ulio sawa kuzingatia mapato yatakayokusanywa kutoka kwenye huduma za kitalii mionganii mwa jamii zinazohusika ndani ya eneo la hifadhi na zile zilizoko kwenye ardhi za jirani.

4.0 Strategies for Natural Values Conservation

Mikakati ya Thamani za Asili za Hifadhi

4.1: Geological and Geo-morphological Features

4.1.1 Geology, Rock and Soil

The Tarangire Conservation Area lies within the eastern portion of the East African Rift Valley. The TCA is underlain by pre Cambrian gneiss and crystalline rocks which, as a consequence of their different weathering characteristics, gave rise to prominent outcrops such as Radilen Kopje and Boundary Hill, as well as being the source of the sands, clays, silts gravel and pebbles that characterize this area.

The major soil types are well-drained loams that vary in structure dependent upon their location, alluvial on ridges and along river valleys and colluvial on hill slopes where, because of a lack of depth, they become increasingly stony. 250,000 years ago Lake Manyara was considerably bigger than it is today and extended out to cover plains that are now in the north of the TCA. This resulted in lake deposits and sediments of sand and clays in this area, which are normally saline. The third soil type comprises of alluvial deposits, predominately vertisols, otherwise known as black-cotton soils. These fine particle clay soils are poorly drained becoming waterlogged in the wet season while, during the dry season, they harden, expand and crack.

4.1.2: Hydrology

The geologic sub-strata of fractured pre Cambrian rocks provide considerable aquifer water storage in the higher areas of the TCA. This stored water is slowly released underground to discharge into the swamps of Gosuwa to the east and Silale to the west, both acting as water retaining sumps well into the dry season. The Silale Swamp drains into the Tarangire River and subsequently empties into Lake Burungi. The Tarangire River is also fed by wet season run off from the Boundary Hill and central highland area of the TCA flowing both west directly into the Tarangire River and east into the Gosuwa swamp. The Gosuwa Swamp drains through the main sand river characterizing the riverine aspect of the TCA, through the Lemiyon plains, to the Tarangire River.

4.1: Sura za Kijolojia na za maumbile ya dunia

4.1.1 Jiolojia, Mawe na Ardhi

Eneo la Hifadhi la Tarangire lipo sehemu ya mashariki ya Bonde la Ufa la Afrika Mashariki. Eneo hili liko juu mawe ya aina ya pre Cambrian gneiss na mawe maangavu yanayofanana na madini ya fuwele. Hali ya uchakavu unaotofautiana, kumesababisha kuzuka miamba nundu maarufu kama vilima nya Radilen na Boundary, na pia chanzo cha michanga, udongo, mchangatope, changarawe na mawe madogo madogo ambayo hupatikana kwenye eneo hili.

Sehemu kuu ya udongo ni tifutifu na kavu ambayo hutofautiana kiumbile kutegemea na sehemu. Tope la kwenye sehemu zilizopo kando kando mwa mabonde ya mito na tope kwenye miteremko ya milima ambayo kwa sababu ya kutokuwepo na kina kirefu, yanaendelea kuwa mgumu kama jiwe. Miaka 250,000 iliyopita, Ziwa la Manyara lilikuwa kubwa kuliko lilivyo hivi sasa na lilitanda kufunika uwanda ambaosasa hivi uko kaskazini mwa TCA. Hali hii imesababisha kuwepo kwa mashapo / tope la ziwa na chenga za mchanga na udongo wenyewe chumvichumvi. Aina ya tatu ya udongo imetokana na udongo ulioachwa na maji, ambaosababisha kama udongo wa mfinyanzi. Udongo huu wenyewe chembechembe nyororo haupitishi maji vizuri na hivyo hujaa maji wakati wa majira ya mvua, na kipindi cha ukame hugeuka kuwa mgumu na hivyo hupanuka na kupasuka.

4.1.2: Hali ya Maji

Umbile la miamba ya pre Cambrian iliyopasuka ndiyo inayohifadhi maji kwenye sehemu za juu za TCA. Maji haya yaliyohifadhiwa yanatoka taratibu chini ya ardhi na kumwagika kwenye vinamasi nya Gosuwa upande wa mashariki na Silale upande wa magharibi, sehemu zote zikiwa kama sampu / mashimo ya kuhifadhi maji mpaka vipindi nya ukame. Kinamasi cha Silale kinatirisha maji kwenye Mto Tarangire ambayo hatimaye humwagika kwenye Ziwa la Burungi. Mto Tarangire nao unanyishwa kipindi cha mvua kwa maji yatokayo kwenye kilima cha Boundary na eneo la kanda za juu za kusini za TCA moja kwa moja upande wa magharibi na kwa upande wa mashariki hadi kwenye Kinamasi la Gosuwa. Kinamasi la Gosuwa linatiririka kupitia Mto Sand unaota sifa ya hali ya kuwepo kwa mito, kupita kwenye tambarare za Lemiyon na moja kwa moja kwenye Mto wa Tarangire.

4.1.3: Physical Characteristics

The physical characteristics are dominated by the highlands of Boundary Hill to the south and the central highlands culminating in the Poachers Hill viewpoint. Other topographic features include the Naitolia flood-plains, the Lemiyon Plains, the Tarangire ‘Sand’ River together with its tributaries and the Gosuwa Swamps. The altitude ranges between 1,400 m (4,600 ft) and 1,150 m (3,800 ft). The ridge running between the Boundary and Mapo Hills is a watershed offering exceptional views both east and west. Numerous drainage courses drain west into the Tarangire River and east into the Gosuwa Swamp during the rainy season providing interesting topography and niche riverine habitats. The majority of the TCA, except for the Gosuwa Swamp, is a rolling landscape dotted with rocky outcrops to the east, and savannah, plains and baobab acacia mosaic to the west. To the north the TCA encompasses another hilly area named ‘Three Hills’ which descends south toward the Lemiyon Plains, an important dispersal area for several large mammal species such as elephant, buffalo, wildebeest and zebra.

Aim

- Protect significant and fragile geological and natural features in the conservation area and adjacent lands.

Management Strategies

- Through the zoning system protect sensitive habitats, such as the Lemiyon Plains and Gosuwa Swamp by restricting vehicular access and development; through non-destructive activities such as walking safaris; by maintaining all weather access roads and closure of roads through fragile environments. See figure 3, Roads closures and Permanent road system.



4.1.3: Sifa Umbile

Sifa umbile zimetawaliwa na miinuko ya Kilima cha Boundary upande wa kusini na ya katikati inayoishia kwenye kituo cha uchunguzi cha Kilima cha Poachers. Sura nyininge za maelezo ya mandhari (topografia) ni pamoja na tambarare za mafuriko za Naitolia, nyanda za Lemiyon, Mto wa ‘Sand’ wa Tarangire pamoja na maingilio ya mito mengine na Kinamasi la Gosuwa. Safu ya mwinuko ni kati ya mita 1,400 (futi 4,600) na mita 1,150 (futi 3,800). Mwinuko unaopita katikati ya vilima vyta Boundary na Mapo ni eneo linalogawa maji na hivyo kutoa mandhari ya ajabu kutoka pande zote za mashariki na magharibi. Njia za mitiririko mingi zinaelekea magharibi kwenye Mto Tarangire na mashariki kwenye Kinamasi la Gosuwa kipindi cha mvua na hivyo kusababisha makazi ya mandhari (topografia) na ya kandokando ya mito ya kustabajisha. Eneo kubwa la TCA, ispokuwa Kinamasi la Gosuwa, ni mandhari inayobiringika iliyotapakaa / tawanyika miamba nundu kwa upande wa mashariki, na uwanda mpana wa savana, mpangilio wa mibuyu na miti ya acacia upande wa magharibi. Upande wa kaskazini wa TCA unajumuisha eneo lingine la vilima liitwalo ‘Three Hills’ ambalo linashuka kusini kuelekeea kwenye nyanda za Lemiyon, ambako ni eneo muhimu la utawanyishi wa wanyamapor wa kama vile tembo, nyati, kongoni na punda milia.

Lengo

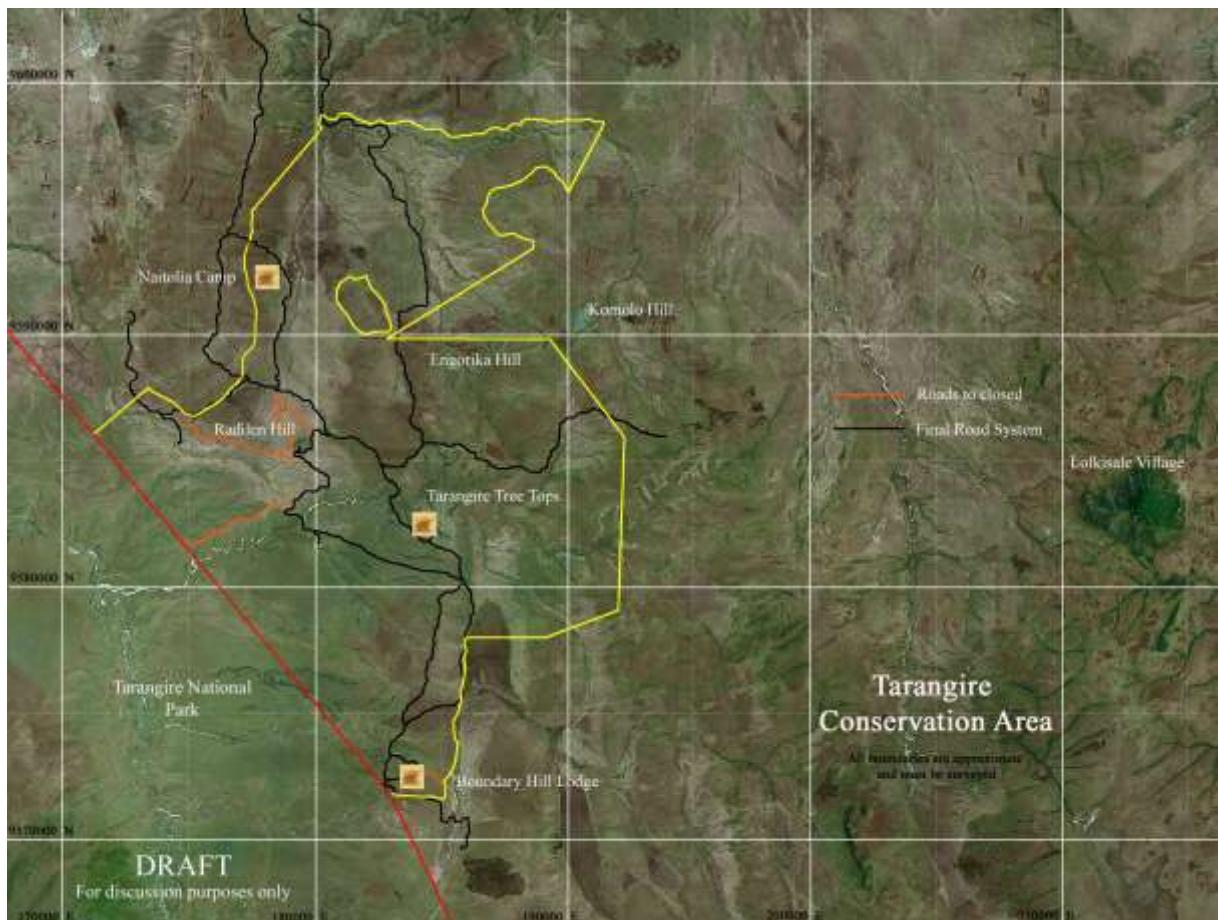
- *Kulinda sura za kijiolojikia na za asili ambazo ni muhimu na dhaifu zilizomo ndani ya eneo la hifadhi na kwenye ardhi za jirani.*

Mikakati ya Usimamizi

- *Kwa kutumia mfumo wa ugawanyaji wa makazi yenye uwezo wa kuathirika haraka, kama nyanda za Lemiyon na Kinamasi la Gosuwa kwa kuzuia kupitapita kwa magari na uendelezaji; kuendeleza kwa kujihusisha na zisizokuwa na athari haribifu kama safari za matembez ya miguui; kutunza barabara za misimu yote na ufungaji wa barabara zipitazo kwenye mazingira yanayohitaji uanganifu maalum; Angalia Kielelezo cha 3, Ufungaji wa Barabara na Mfumo wa barabara za kudumu.*

Photographs showing erosion occurring during the rainy season on old roads with “dams” built of timber and brush to slow the water flow and enable settling of suspended sand and dirt, and the final result with the backfill behind the dams. The timber and brush eventually rots away within two seasons, leaving re-growth areas.

Figure 3: Proposed permanent road system and roads to be closed.
Kielelezo cha 3: Pendekezo la Mfumo wa barabara za kudumu na barabara za kufungwa



4.2: Catchment and water conservation

4.2.1: Climate

The Tarangire Region has a semi arid climate with a pronounced dry season and is classified as eco-climatic zone V; arid rangeland. Rainfall is the most important factor determining climate and is concentrated into a period between December and early May, averaging about 650 mm per annum but varying widely from year to year. The dry season commences in May, followed by a brief cool season before gradually warming towards November.

4.2: neo la chanzo cha maji na hifadhi ya maji

4.2.1: Tabia ya hali ya hewa

Sehemu ya Tarangire ina hali ya hewa iliyonusu – kame na ina majira ya kiangazi sana na imemeanishwa kuwa ukanda wenye tabia ya hali ya hewa 'V'; sehemu kame. Mvua ndiyo kigezo kikubwa cha kudhahirisha tabia ya hali ya hewa na hunyesha kipindi cha kati ya Desemba na mwanzoni wa Mei, ikinyesha wastani wa milimita 650 mm kwa mwaka lakini hutofautiana mwaka hadi mwaka. Majira ya kiangazi huanza Mei, yakifuatiwa na majira ya baridi kidogo kabla ya ku-fuatiwa na majira ya joto kuelekea Novemba.

4.2.2: Rainfall pattern and distribution

Rainfall and other climatic records for the Tarangire area are fragmentary making it difficult to perform any valid analysis of climatic variation over time. Rainfall at Tarangire is, on average, low but varies widely from year to year. The average rainfall is 658 mm with a standard deviation of 203.3 mm. The growing season varies from 38 to 200 days, with an average of 144.1 days. The average start of the growing season is January 15th, varying from November 7th to April 13th. The average end of season date is May 29th varying from May 5th to June 19th (TANAPA/AWF 1991).

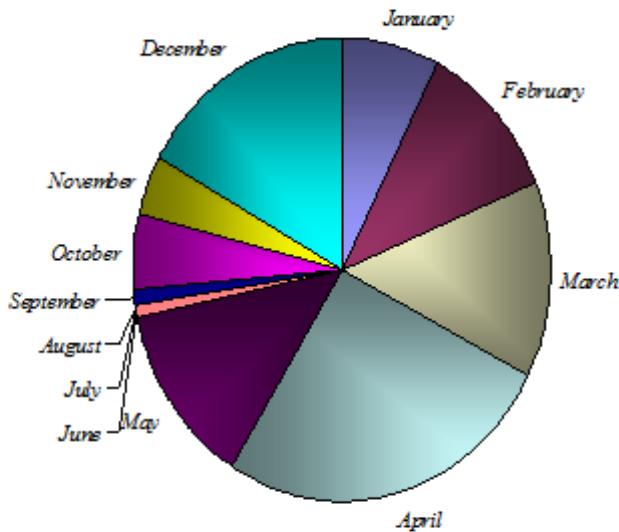
Tarangire rainfall is low in amount and high in variability. In an average year there are 7 rain events of 140 mm of rain, each lasting a few days. The rainfall pattern follows that of short rains, followed by a dry spell, followed by long rains. The short rains are unreliable with large spatial variation. The late rains are more reliable. Exceptional climatic events such as the El Nino rains 1997/1998 increased the average annual rainfall between 1995 & 1999 to 900 mm (TANAPA 2002) but this should be recognised as unusual.

4.2.2: Mfumo wa mvua na ugawanyikaji

Mvua na kumbukumbu nyingine za tabia ya hali ya hewa za eneo la Tarangire hazijakamika na hivyo kuleta ugumu kwenye upembuzi yakinifu wa halali wa kiwango cha mageuzo / mabadiliko ya tabia ya hali ya hewa wakati maalum. Mvua kwenye sehemu ya Tarangire kwa wastani ni ndogo lakini hubadilika sana mwaka hadi mwaka. Kipimo cha mvua kwa wastani ni mililita 658 ikiwa na mchepuko kutoka kiwango cha mililita 203.3. Majira ya ukuaji unatofautiana kutoka siku 38 hadi 200, kukiwa na wastani wa siku 144.1. Majira ya ukuaji kwa wastani huanza Januari 15, yakibadilika kutoka Novemba 7 hadi Aprili 13. Tarehe ya mwisho wa majira ya wastani ni Mei 29 ikitofautiana kuanzia Mei 5 hadi Juni 19 (TANAPA/AWF 1991).

Mvua ya Tarangire ni ndogo kwa kiasi na ina tabia ya ubadilikajabidilika wa hali ya juu. Kwenye kipindi cha wastani cha mwaka kuna matukio 7 ya mvua yenye milimiea 140 ya mvua na kila moja hunyesha kwa siku kadhaa. Mfumo wa mvua hufuata ule wa vuli, ukifuaatiwa na kipindi cha kiangazi, na baadaye mvua za masika. Mvua za vuli haziaminiki na hubadilika kutokana na masuala ya anga. Mvua za vuli zina uhakika zaidi. Matukio ya ajabu kama yale ya mvua za el Nino za 1997/1998, yaliongeza kiwango cha wastani cha mvua kati ya 1995 na 1999 kufikia mililita 900 (TANAPA 2002). Lakini itambulike kuwa hali hii siyo ya kawaida.

Chart showing distribution of rainfall in Tarangire area by month.



4.2.3: Water Sources

Apart from the water tanks at Boundary Hill Lodge with a capacity for collecting 350,000 litres of rain water, all other water sources within the TCA are natural and consist of rivers, streams, marshes, swamps and seasonal floodplains. Apart from Boundary Hill Lodge, all other tourist facilities cart water from the community borehole at Makuyuni village. All natural water sources in the TCA are highly variable and the majority of them dry up over the dry season. Some water is available in the lower reaches of the TCA Sand River if holes are dug in the riverbed – an activity regularly performed by elephants. As water is such an important driver for animal movement into and through the TCA, as well as also being critical to livestock movement and impacts, more information is required relating to water availability on a seasonal basis.

Water sources in the Tarangire Conservation Area have been designated as five types as shown in Figure 4:

- Natural seasonal waterhole formed by ground water rising to the surface.
- Hand dug Maasai wells for livestock purposes, shared also with wildlife.
- Surface water remaining in swamp areas.
- Shallow wells dug by elephants in dry sand river beds.
- Boreholes for livestock or tourist facilities.

4.2.4: Catchment area

The Tarangire Conservation Area forms one of the major catchment areas for the Tarangire River, and as such is extremely important to the health and viability of the Tarangire National Park.

The highlands from Boundary Hill north to Poachers Hill is an important catchment area feeding into the Tarangire River on the eastern slopes and into Gosuwa Swamp on the western slope then north into the Sand River (Tarangire River) within the conservation area.

4.2.3: Vyanzo vya Maji

Mbali na mapipa ya maji ya hoteli ya Boundary Hill yenye ukubwa wa kukusanya lita 350,000 za maji ya mvua, vyanzo vingine vya maji ndani ya TCA ni vya asili vinavyounda mito, vijito, maziwa yenye matope, vinamasi, na mafuriko ya msimu. Mbali na hoteli ya Boundary Hill, sehemu zote za utalii nyingine zinabeba maji kutoka kisima cha jamii cha Kijiji cha Makuyuni. Hali ya vyanzo vyote vya maji ya asili ndani ya TCA hubadilikabadiika na vingi kati yao hukauka wakati wa kiangazi. Kuna maji kiasi yanayoweza kapatikana kutoka sehemu za chini za Mto wa Sand wa TCA iwapo visima vitachimbwa kwenye mto – jambo ambalo hufanywa mara kwa mara na tembo. Kwa vile maji ni suala lenye umuhimu mkubwa kwa uhamaji wa wanyamaporu kuingia na kutoka TCA, na pia kwa uhamaji na athari juu ya mifugo, taarifa ya ziada itaka-yohusiana na upatikanaji wa maji kufuatia misimu inahitajika.

Vyanzo vya maji kwenye Eneo la Hifadhi la Tarangire vimeotajwa kuwa vya aina tano kama ilivyoonyeshwa kwenye Kielelezo cha 4:

- *Mashimo / madimbwi ya msimu yanayoundwa na maji ya ardhini kupanda juu;*
- *Visima vya KiMaasai vinavyochimbwa kwa mikono kwa madhumuni ya mifugo, na kuchangiwa na wanyamaporu pia;*
- *Maji ya juu yanayobakia kwenye maeneo ya vinamasi;*
- *Visima vifupi vinavyochimbwa na tembo kwenye sehemu za chini za mito ya mchanga iliyokauka;*
- *Visima virefu vilivyoochimbwa kwa madhumuni ya mifugo au huduma za watalii.*

4.2.4: Eneo kingaji

Eneo la Hifadhi la Tarangire ni moja ya meneo kingaji makuu ya Mto Tarangire, na kutokana na hali hiyo ni muhimu sana kwa afya na kwa uwezo wa kujitegemea wa Mbuga ya Taifa ya Tarangire.

Miinuko ya kutoka Kilima cha Boundary kwa kaskazi ni hadi Kilima cha Poachers ni muhimu na ni eneo kingaji muhimu linalonywesha Mto wa Tarangire kwa upande wa miteremko ya mashariki na kuingia kwenye Kinamasi la Gosuwa upande wa miteremko ya magharibi iingiayo Mto wa Sand (Mto Tarangire) ndani ya eneo la hifadhi.

Further to the west in the Mapo hills in adjacent community lands and to the north into the Lolkisale Livestock and Wildlife Zone, catchment runoff also finds its way into the Tarangire River through the Gosuwa Swamp and Sand River northern branches.

The Gosuwa swamp also provides an extremely important dry season forage and water source for community livestock.

Mbali zaidi, upande wa magharibi ya vilima vya Mapo kwenye ardhi ya jamii jirani na kaskazini kuelekea kwenye Ukaanda wa Mifugo na Wanyamapori wa Lolkisale, michuruzu ya kutoka kwenye eneo kingaji pia inapata njia inayoishia kwenye Mto wa Tarangire kwa kupitia Kinamasi la Gosuwa na matawi ya kaskazini ya Mto wa Sand.

Kinamasi la Gosuwa pia linatoa sehemu ya kutafuta chakula kipindi cha ukame na chanzo cha maji kwa mifugo ya jamii.

Aim:

- Maintain water quality in the conservation area and adjacent lands.
- Prevent and minimise the degradation of water sources in the conservation area and park through intrusive farming methods, runoff and saltation.
- Kutunza maji safi ndani ya eneo la hifadhi na kwenye ardhi jirani.
- Kuzuia na kupunguza uharibifu wa vyanzo vya maji viliyomo ndani ya eneo la hifadhi na mbugani kwa kutumia mbinu haribifu za kilimo.

Management Strategies

- Existing sources should be surveyed and coordinates should be obtained by GPS.
- Records should be kept on an annual basis of the duration during the dry season when surface water is available.
- No infrastructure should be developed within one (1) kilometre of any water source.
- Encourage, where possible, water collection systems in the major tourist facilities to reduce the impact on ecosystem resources..
- Ensure that waste water from tourist facilities is removed and handled in a responsible manner.
- No boreholes should be developed in the conservation area without Environmental Impact Statement.

Mikakati ya Usimamizi

- Vyanzo viliyopo vipimwe na alama zitolewe na GPS.
- Kumbukumbu za mwaka ziwekwe kipindi cha majira ya kiangazi wakati maji ya juujiu yanapati-kana.
- Kusijengwe aina yejote ya miundo mbinu kilomita moja (1) kutoka chanzo chochote cha maji.
- Hamasisha, inapowezekana, mifumo ya ukingaji maji kwenye sehemu za kuhudumia watalii ili kupunguza athari juu ya rasilimali za ekosistim.
- Hakikisha maji machafu kutoka kwenye sehemu za kuhumia watalii yanaondolewa na kushughulikiwa vyema.
- Visima virefu visijengwe kwenye eneo la hifadhi bila ya Maelezo ya Athari ya Mazingira.

4.3: Range of Wildlife, Distribution and Habitat

In 1935, Mary Leakey travelled with her husband Louis Leakey southwards from Olduvai Gorge along the Great Northern road towards the pictographs at Kisesse and Kolo, only 40 kilometres south of Tarangire National Park. This followed Louis Leakey's earlier visit through the area in 1929 when the plains had been rich in game including giraffe, eland, antelope, kudu and zebra. On their trip just six

4.3: Aina za Wanyamapori, Ugawaji na Makazi

Mwaka 1935, Mary Leakey alisafiri na mumewe Louis Leakey kuelekea kusini mwa Korongo la Olduvai kandokando mwa barabara kuu ya Kaskazini kuelekea kwenye taswira za Kisesse na Kolo, kilomita 40 tu kusini mwa Mbuga ya Taifa ya Tarangire. Safari hii ilifuatilia nyingine ya Louis Leakey aliyoifanya mwaka 1929 wakati nyanda zilikuwa zimejaa wanyamapori kama twiga, pofu, paa, kudu na punda milia. Kwenye

years later, virtually all the game had vanished on account of the British Administration's wholesale destruction of wildlife, the bush and the forest in an anti-tsetse fly campaign. How much of the Tarangire ecosystem was affected by this program is unknown, but testimony to the resilience of the bush is how, until the park was gazetted in 1957; 22 years after the mass destruction, the area was well known as an exceptionally good hunting area.

Whether the ecosystem could recover from a similar phase now is unlikely, with permanent farms scattered to the north and east of Lolkisale Mountain and to the east of the park around Makuyuni and Mswakini Juu.

Protection of the habitat only is not sufficient to ensure survival of species. In the 1950s when the park was gazetted as a reserve, oryx were migrating over 130 kilometres from the Maasai steppes to the permanent waters around Tarangire. However with the opening of large scale farms around Lolkisale during the early eighties, many species have been threatened with extinction in the area, most notably the rhinoceros which is now no longer found in the Tarangire ecosystem, where once it was on the front cover of the first Tarangire National Park guidebook. Oryx, which were once seen every year in the Lemiyon Plains area of the conservation area during the mid to late nineties during the rainy season, are now uncommon, and no recent sightings have occurred. The cause of this must be the unrestricted loss of habitat far from the park, and uncontrolled hunting. Any strategy to preserve species must also include areas which are quite distant from the core preservation areas.

4.3.1: Vegetation

4.3.1.1: Bio-geographic Classification

The Tarangire Conservation Area, located in the Maasai Steppes, forms part of the Somali-Maasai biogeographic region of Africa and is classified as arid rangeland by Pratt and Gwynne (1977).

4.3.1.2: Vegetation Types

The Tarangire Conservation Area is an extension of the habitat types comprising the Tarangire National Park. Preliminary aspects of the vegetative components of the Tarangire National Park have been analysed in a recent assessment of the biodiversity of Tarangire National Park (Moehlman et al. 1995). The study identified eight major vegetation types of which at least six are to be found in the Tarangire Conservation Area. These are outlined in the Table below. A thorough natural resource inventory is required to fully categorise the vegetation types to be found in the TCA.

safari yao iliyofanyika miaka sita tu baadaye, wanya-mapori wote walikuwa wametoweka kutokana na uharibifu wa jumla wa wanyamapor, mbuga na pori uliyofanyika na Utawala wa Kiingereza kwa sababu ya kampeni dhidi ya dorobo. Ni kiasi gani ekosistim ya Tarangire iliathiriwa na mradi huu hajulikani, lakini ushahidi wa jinsi hali ya mbuga ilivyo sasa hivi ni kigezo mojawapo, hadi mbuga ilivyosajiliwa / chapishwa mwaka wa 1957; miaka 22 baada ya tukio haribifu la jumla, ndio eneo likajulikana kuwa na eneo la uwindaji lenye uzuri wa pekee.

Iwapo mfumowa wanyama unaweza kupona kutokana na madhara yanayofanana kwa siku hizi ni jambo lisiloyamkinika, kukiwa na mashamba ya kudumu yaliyotawanyika upande wa kaskazini na wa mashariki wa Mlima wa Lolkisale na kwa upande wa mashariki wa mbuga kuzunguka Makuyuni na Mswakini Juu.

Utunzaji wa makazi peke yake hautoshi katika ari ya kuhakikisha kuendelea kuishi kwa spishi tofauti. Miaka ya 1950 wakati mbuga ilipoandikishwa kuwa hifadhi, choroa walikuwa wanatembea zaidi ya kilomita 130 wakitokea nyika za Maasai kuelekea kwenye maji ya kudumu yaliyozunguka Tarangire. Lakini uanzishaji wa mashamba makubwa mwanzoni mwa miaka ya themanini kwenye sehemu inayozunguka Lolkisale, aina nyingi za wanyamapor, zimetishia kutoweka kabisa kwenye eneo, hasa vifaru ambaa sasa hivi havapatikani kwenye mfumo wa wanyama wa Tarangire. Wakati fulani picha yao ilikuwa kwenye ganda la juu la kitabu cha maelekezo cha kwanza cha Mbuga ya Taifa ya Tarangire. Choroa, ambaa walikuwa wakionekana mara moja kila mwaka kwenye nyanda za Lemiyon Lemiyon, ndani ya eneo la hifadhi nyakati za msimu wa mvua miaka ya katikati tisini hadi mwishoni, sasa hivi ni ajabu, na hawajaonekana muda mrefu. Sababu ya hali hii itakuwa kupoteka kusikodhibitiwa kwa makazi yaliyo mbali na mbuga na uwindaji wa kiholela. Mkakati wowote wa kutunza aina za wanyamapor lazima uzingatia meneo yalioko mbali na mae-neo maalum ya utunzaji.

4.3.1: Uoto

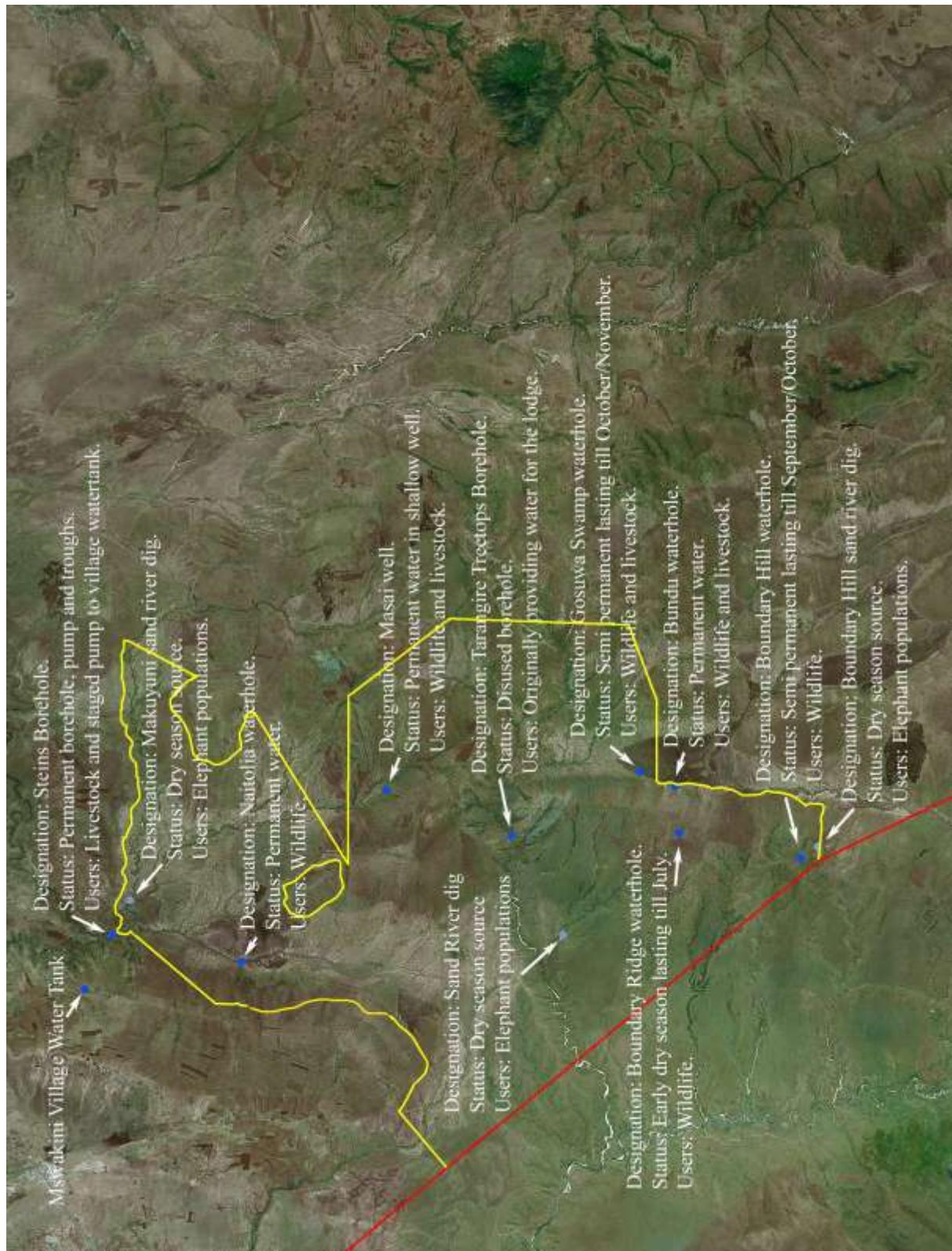
4.3.1.1: Uainishaji wa ki-jiografia inayohusu uhai

Eneo la Hifadhi la Tarangire, liko kwenye Nyika za Maasai, ni mfumo wa kanda ya ki-jiografia inayohusu uhai ya Somali-Maasai ya bara la Afrika na limeainishwa na Pratt na Gwynne (1977) kuwa eneo la ukame.

4.3.1.2: Aina za Uoto

Eneo la Hifadhi la Tarangire ni nyongeza ya aina ya makazi yaliyomo ndani ya Mbuga ya Hifadhi ya Taifa. Uchunguzi wa mwanzo wa sehemu za uoto za

Figure 4: Water sources within the TCA
Kielelezo cha 4: Vyanzo vya maji ndani ya TCA



The most important vegetation types comprise of a combination of the following (see figure 5).

Riperine woodland and riverine forest such as that found on the sand river and its tributaries which is characterised by species such as *ficus* sp., *kigekai africana*, *acacia siberiana*, *salvadora persica* and *cordia ovalis*. Mbuga, such as the Gosuwa swamp complex, is dominated by *cyperus* sp., elephant grass and other water specific species. The margins of the swamp are dotted with large, mature baobab trees, which also make their mark in the more heavily wooded areas of the TCA. seasonal floodplains, such as the Lemiyon plains, which are open grasslands on ‘black cotton’ soils, sport a mosaic of *combretem dalbergia* woodland on the better drained soils.

Acacia tortilis parkland and *acacia-commiphora* woodland form the more extensive woodlands. Around the lodge sites the species mix change to include *adansonia digitata*, *alanites aegypticum*, *acacia mellifera*, *commiphora africana* and *terminalia brownii*. The rocky, hill vegetation such as that found at Boundary Hill is dominated by tall *hyparrhenia* species together with the tree species of *terminalia brownii* and *combretn zeyheri* and the shrub species of *commiphora africana* and *grewia* Sp.

Aims

- To protect natural habitats, ecological communities and indigenous flora in the conservation area and adjacent community lands.
- Improve knowledge of the conservation area, including habitats, indigenous species and threatening process.
- Identify areas within the broader ecosystem with significant local values which will assist in preserving the greater ecological base of the ecosystem.



Mbuga ya Taifa ya Tarangire vimepembuliwa yakinifu kwenye tathmini ya hivi karibuni ya aina tofauti za uhai (biodiversity) ndani ya Mbuga ya Taifa ya Tarangire (Moehlman et al. 1995). Uchunguzi ulidhihirisha aina name kuu za uoto ambazo ingalau sita zinapatika Eneo la Hifadhi la Tarangire. Hizi zimetajwa kwenye jedwali lifuatalo. Orodha kamili ya rasilimali ya asili inahitajika kwa madhumuni ya kuainisha aina za uoto zinazopatikana ndani ya TCA.

Aina za muhimu sana za uoto zimo ndani ya mchan-ganyiko usuatao (angalia Kielelezo cha 5)

*Misitu na mbuga ziliyokandokando ya mto wa Sand pamoja na vijito vyake, zinajulikana kwa spishi zake za kama *ficus* sp., *kigekai africana*, *acacia siberiana*, *salvadora persica* na *cordia ovalis*. Mbuga, kama ile ya changamano la Kinamasi la Gosuwa, imetawaliwa na minvinje, majani ya tembo na spishi nyingine za majini. Kwenye ukingo wa kinamasi, mibuyu iliyokomaa imesambaa, na pia inaonekana kwenye maeneo ya misitu minene ya TCA. Tambarare za mafuriko ya msimu kama zile za Lemiyon, zina mbuga za wazi juu ya udongo wa aina ya ‘black cotton’, na pia mpangilio wa msitu wa *combretem dalbergia* juu ya udongo unaopitisha maji vizuri zaidi.*

Mbuga za acacia tortillas na misitu ya acacia-commiphora ni sehemu ya mbuga kubwa zaidi. Karibu na maeneo ya hoteli za utalii, spishi zinabadilika kuwa za adansonia, alanites aegypticum, acacia mellifera, commiphora africana na terminalia brownii. Uoto wa juu ya mawe kama ule unaopatikana kwenye kilima cha Boundary umetawaliwa na spishi za miti mirefu ya hyparrhenia pamoja na za terminalia brownii na combretn zeyheri na spishi za vichaka vya commiphora africana na grewia Sp.

Malengo

- *Kutunza makazi ya asili, jamii za ki-ikolojia na mimea ya kienyeji iliyopo ndani ya eneo la hifadhi na ardhi za jamii za jirani.*
- *Boresha ujuzi juu ya eneo la hifadhi, pamoja na makazi, spishi za kienyeji na mfumo unaotishia.*
- *Tambua maeneo ndani ya ekosistim kubwa yenye thamani za kienyeji za maana ambazo zita-saidia kwenye utunzaji wa mfumo wa wanyama kufuatana na msingi wa ki-ikolojia.*

Grassland and riverina forest, Gosuwa swamp looking east.

Management strategies

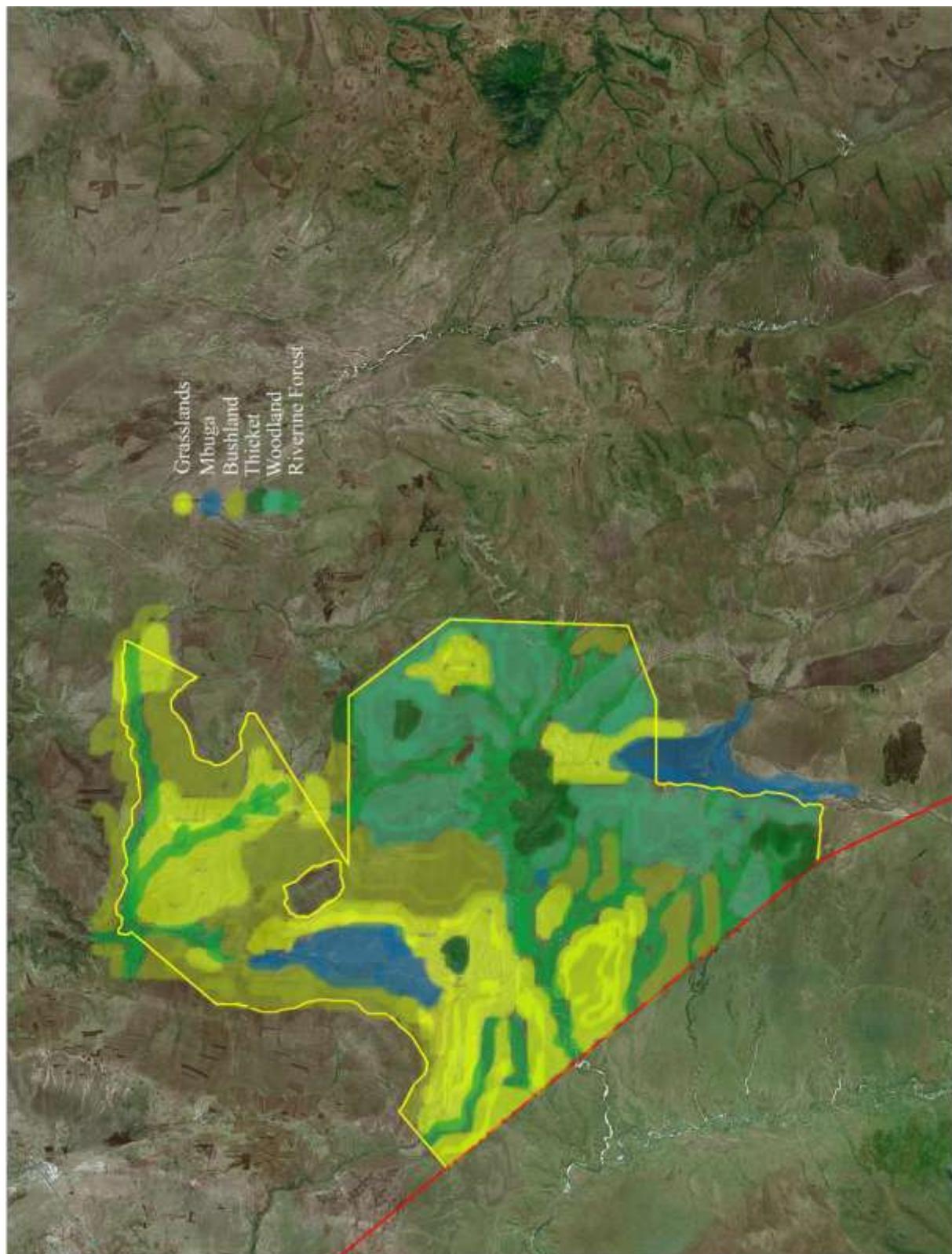
- Establish and implement an appropriate long-term habitat monitoring program, as part of a relevant ecosystem wide habitat monitoring program.
- Map habitats at scales suitable for management purposes
- Encourage research into key threatening processes and major knowledge gaps.
- Manage visitor activities to minimise impacts on flora communities.

Mikakati ya usimamizi

- *Unda na tekeleza mpango wa muda mrefu utakaofaa wa ufuutiliaji makazi, ikiwa kama sehemu ya ufuutiliaji wa makazi utakaofaa wa ekosistim pana zaidi.*
- *Ramani za makazi zenyne vipimo vitakavyofaa masuala ya usimamizi*
- *Hamasisha utafiti juu ya mifumo mikuu inayotishia na mapungufu makuu ya ujuzi*
- *Simamia shughuli za wageni kupunguza athari kwenye jamii za flora.*

Primary Physiognomy <i>Sura ya Msingi</i>	Vegetation Category <i>Aina ya Uoto</i>	Definitions and Specifications <i>Fafanuzi na Ainisho</i>
GRASSLAND <i>UKANDA WA MBUGA</i>	Medium Grassland <i>Mbuga ya wastani</i>	Continuous grass cover, some herbs, sometimes with scattered trees and shrubs in which wood vegetation canopy is less than 20%. <i>Majani yaliyotanda kila mahali, baadhi ni mimea ya misimu, wakati mwingine vichaka na miti iliyotawanyika. Mfuniko / mwavuli wa uoto wa mbaa ni chini ya asilimia 20%.</i>
MBUGA	Tall grassland <i>Mbuga ndefu</i>	Grassland of mixed species composition with varying height classes. Seasonal flood plains. <i>Mbugu yenye mchanganyiko wa spishi zenyne urefu wa aina mbalimbali. Nyanda za mafuriko ya msimu.</i>
BUSHLAND <i>PORI</i>	Bushland <i>Pori</i>	Upper stratum of woody plants of low stature (<3m) with multiple stems and crown cover of at least 21%. Tall trees may be present but, widely scattered, do not form a conspicuous canopy. <i>Tabaka ya juu ya mimea ya mbaa yenye kimo kifupi (<3m) na mashina yenye maumbo mengi na ufuniko wa ingalau asilimia 21%. Miti mirefu inaweza kuwepo, lakini imetawanyika sana na hivyo haina ufuniko unaonekana.</i>
THICKET <i>VICHAKA</i>	Evergreen bushland <i>Pori lisilokauka</i>	Bushes, sometimes evergreen, with minimum crown cover of 30%. Found mainly on hills or slopes. <i>Vichaka, wakati mwingine visiv yokauka, vyenye mwavuli wa kima cha chini cha asilimia 30%. Mara nydingi hupatikana kwenye vilima au miteremko.</i>
WOODLAND <i>MSITU MDODO</i>	Low woodland <i>Msitu fupi</i>	Stands of trees of single stem with a minimum stature of 10-15 m and a canopy cover of at least 21%. Crowns may be touching but do not make a thickly interlaced canopy. <i>Miti yenye shina na yenye kimo cha chini cha urefu wa milimita 10-15 na mfuniko / mwavuli wa ingalau asilimia 20%. Miavuli / mfuniko huenda ikagusana lakini haifumanami. Ardhi imejaa majani, mimea ya misimu na vichaka.</i>
RIVERINE FOREST <i>MISITU ILIYO KANDOKANDO MWA MTO</i>	Riverine Forest <i>Misitu iliyokandokando mwa mito</i>	Forest along drainage lines. Tree cover with closed canopy of one or more strata (>10m). <i>Misito kandokando mwa sehemu zinazopitisha maji. Mwavuli / mfuniko wa miti ni wa zaidi ya tabaka moja au zaidi (>10m).</i>

Figure 5: Vegetation Types within TCA
Kielelezo cha 5: Aina za Uoto ndani ya TCA



4.3.2 Wildlife

Wildlife resources are outlined below making reference to Figures 6, 7 and 8. Currently insufficient data is available to make informed comment on invertebrate populations, microhabitats and niche specialisation within the Tarangire Conservation Area, although the varied topography provides for a variety of niche habitats.

Tarangire River Corridor: During the rainy season elephants exit the Tarangire National Park along the Tarangire River watercourse of the Tarangire Conservation Area before leaving to go out into the Lemiyon Plains on course for the Naitolia floodplains. Once in the Naitolia floodplain they remain for approximately two months of the rainy season before returning to Tarangire National Park, although resident groups can be found throughout the year.

Specific research was performed on the Tarangire elephant population (TCP, 1995 – 1998) using Global Positioning System (GPS) collars to track individual elephants from different subpopulations on a regular basis. This data showed there to be at least three distinct sub-populations in the Tarangire National Park, one of which utilised the Tarangire Conservation Area and the identified zones of influence during the wetter times of year. Other information, gathered at the community level, provides elephant distribution values from the community perspective. This elephant distribution data is shown in Figure 6. This use of the TCA and peripheral areas by a keystone species such as the elephant clearly illustrates the critical conservation values of this area. This also clearly shows the limitations of range due to farming activities such as those to the north and west of the conservation areas boundaries.

Boundary Hill Corridor: During the rainy season both elephant and buffalo exit the Tarangire National Park in the vicinity of Boundary Hill and enter the TCA to spend two months in and around Gosuwa Swamp before returning to Tarangire National Park. Other data from the elephant research programme (TCP, 1995) and data from ongoing elephant research in the Tarangire National Park indicates the same subpopulation of elephant also enter the southern parts of the TCA. Resident herds of elephant spend the dry season around Boundary Hill and north towards the Bundu waterhole and Gosuwa swamp waterhole.

4.3.2 Wanyamapori

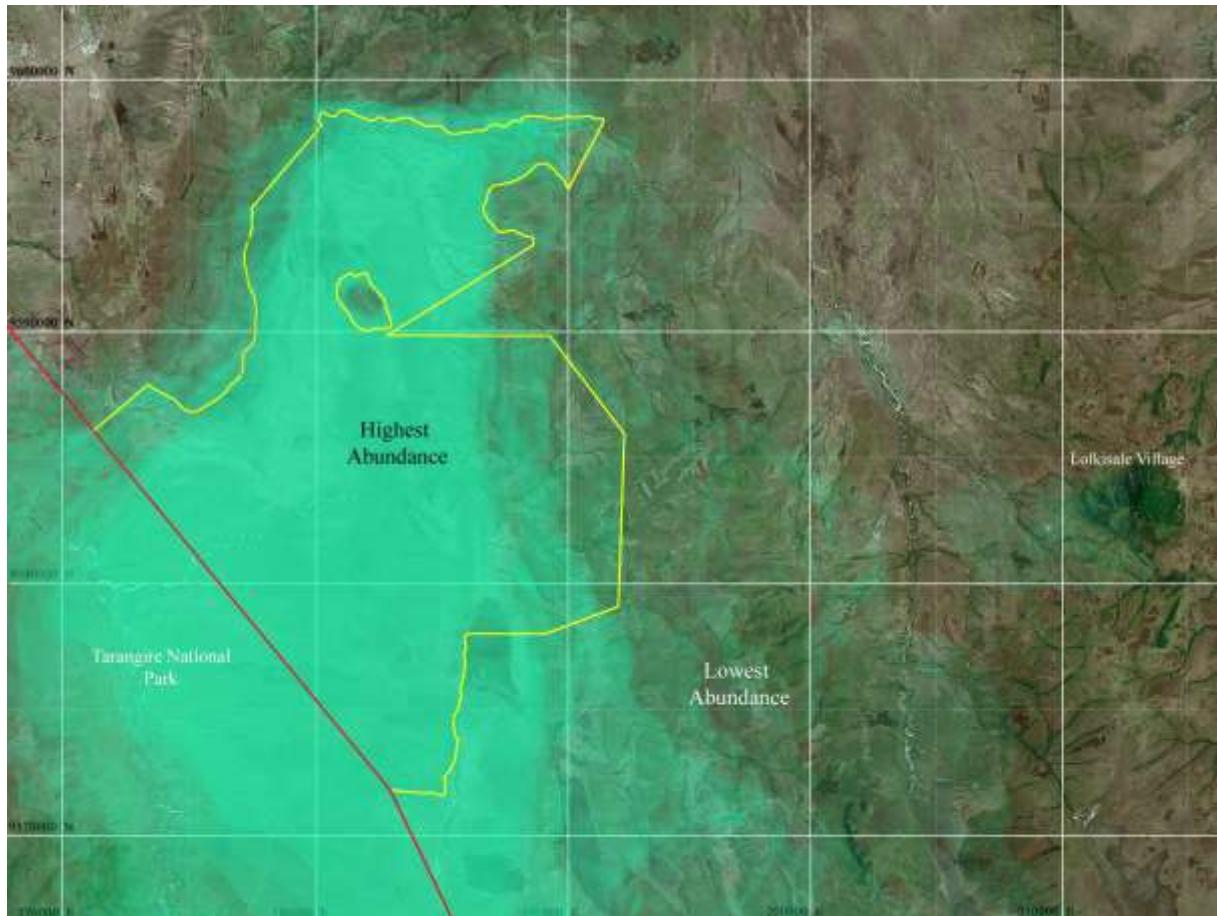
Rasilimali za wanyamapori zimeorodheshwa chini na kuhusishwa na Vielelezo 6, 7 na 8. Kwa sasa hivi, taarifa za takwimu zilizopo hazitoshi kufanya fasiri ya uhakika kuhusu idadi za wanyamapori wasio na migongo, vimakazi vidogo na sehemu maalum ndani ya eneo la Hifadhi la Tarangire, ingawa utofauti wa topografa unadhahirisha makazi maalum mbalimbali.

Ushoroba wa Mto Tarangire: Nyakati za mvua, tembo huondoka kutoka Mbuga ya Taifa ya Tarangire na hutembea kandokando ya mkondo wa maji wa Mto Tarangire kwenye Eneo la Hifadhi la Tarangire kabla ya kwenda kwenye nyanda za Lemiyon wakielekea kwenye tambarare za mafuriko za Naitolia. Wanapofika kwenye tambarare za Naitolia wanabakia huko kwa takriban miezi miwili ya msimu wa mvua, kabla ya kurudi kwenye Mbuga ya Taifa ya Tarangire, ingawa makundi makazi hupatikana kipindi cha mwaka mzima.

Utafiti maalum ulifanyika juu ya idadi ya tembo wa Tarangire (TCP, 1995 – 1998) kwa kutumia Mfumo wa Upangaji wa Dunia (GPS) kufuatilia kwa utaratibu tembo mmojammoja waliotoka kwenye makundi madogo tofauti. Takwimu hizi zilionyesha kwamba kuna ingalau makundi madogo matatu ndani ya Mbuga ya Taifa ya Tarangire, moja ambalo linatumia Eneo la Hifadhi la Tarangire na kanda za miliki zilizotambulika nyakati za majimaji / mvua katika mwaka. Taarifa nyingine, zilizokusanywa katika kiwango cha jamii, ni za kuhusu thamani za mgawanyo wa tembo kutokana na msimamo wa jamii. Takwimu za mgawanyo za tembo zinaonekana kwenye Kielelezo cha 6. Utumiaji wa aina hii wa TCA na maeneo ya jirani, wa spishi maalum kama ya tembo unadhahirisha wazi umuhimu wa thamani za hifadhi za eneo hili. Hii pia inadhahirisha mipaka ya nafasi kutokana na shughuli za kilimo kama zile za kaskazini na magharibi mwa mipaka ya maeneo ya hifadhi.

Ushoroba wa Kilima cha Boundary: Nyakti za mvua tembo na nyati huondoka kutoka Mbuga ya Hifadhi ya Taifa ya Tarangire karibu na Kilima cha Boundary na kuingia ndani ya TCA na kukaa humo kwa miezi miwili kwenye na kandokando ya Kinamasi ya Gosuwa kabla ya kurudi kwenye Mbuga ya Hifadhi ya Taifa ya Tarangire. Takwimu nyingine kutoka kwenye mradi wa utafiti wa tembo (TCP, 1995) na takwimu zinazotoka kwenye utafiti unaoendelea wa tembo ndani ya Mbuga ya Taifa ya Tarangire zinadhahirisha ya kuwa kundi dogo la tembo haohao pia linaingia pande za kusini za TCA. Kipindi cha kiangazi, makundi makazi ya tembo yanakaa kandokando mwa Kilima cha Boundary na kaskazini kuelekea dimbwi la maji la Bundu na la Kinamasi la Gosuwa.

Figure 6: Elephant distribution during the wet season
Kielelezo cha 6: Mgawanyo wa Tembo nyakati za mvua



Central Corridor – After the short rains in November/December several thousand Wildebeest and Zebra transit the central woodlands and swamps of the TCA from Tarangire National Park to areas of more nutritious (phosphate rich) graze and, eventually, their calving grounds. This migration can occur overnight, and in some seasons after overnight rains, the Lemiyon plains around Radilen Hill are dotted with wildebeest who may stay in the area into late January and February depending on local rainfall. After the long rains, in June and July, they return spending up to two months in the hills to the west of the Gosuwa Swamp. Once all sources of standing water dry up they then disperse back to Tarangire National Park and the permanent water of the Tarangire River. Zebra tend to disperse on a wider basis and head further to the north through the conservation area into Naitolia and Mbyuni village lands. This data is corroborated at the community level (See Figure 7) and by data collected by TCP (TCP, 1995). Zebra also tend to stay in the conservation area for much longer periods into the dry season with scattered populations being found around Naitolia well into the drier months of October. Wildebeest populations tend to spend less time in the conservation area

Ushoroba wa Kati – Baada ya mvua za vuli za Novemba / Desemba maelfu ya kongoni na punda milia huvuka pori la kati na vinamasi vya TCA kutoka Mbuga ya Taifa ya Tarangire kuelekea kwenye maeneo ya malisho yenye rutuba (yaliyojaa madini ya fosfati) amba-ko wanakula majani, na baadaye, kuzaa huko. Uhama-ji huu unaweza kufanyika usiku kucha, na nyakati nyingine baada ya mvua za usiku. Nyanda za Lemiyon kuzunguka Kilima cha Radilen kumetapaka kongoni amba-o wanaweza kukaa kwenye eneo mpaka kipindi cha mwishoni wa Januari na Februari kutegemeana na mvua zilizopo. Baada ya mvua za masika, kipindi cha mwezi Juni hadi Julai, hurudi na kukaa hadi miezi miwili kwenye vilima upande wa magharibi wa Kinamasi la Gosuwa. Mara tu vyanzo vyote vya maji yaliyosimama vitakavyokauka, wanatawanyika kurudi kwenye Mbuga ya Taifa ya Tarangire na eneo la maji ya kudumu la Mto wa Tarangire. Punda milia wana elekea kutawanyika kwa mapana na mbali zaidi kuelekea kaskazini kuptitia eneo la hifadhi kuingia Naitolia na ardhi za kijiji cha Mbyuni. Takwimu hii inathibitishwa kwenye kiwango cha jamii (angalia Kielelezo cha 7) na kutokana na takwimu zilizokusanywa na TCP (TCP, 1995). Punda milia hubakia ndani ya eneo

and migrate more to the south east to the Simanjiro Plains and towards the calving grounds in the Lolkisale Livestock and Wildlife Zone, although in lesser numbers. See Figure 8. This migration pattern is quite different to that of 40 years ago where large numbers exited the park to the north towards Manyara, Natron and West Kilimanjaro. This can be directly attributed to the increase in human activity to the north of the park.

African Hunting Dogs – Small groups of African hunting dogs transit the TCA from north to south at different times of year. In March and April dogs have been seen transiting from the northwest heading south and east. They are thought to den in the woodlands to the north of Naitolia, preying on the large numbers of impala, wildebeest and zebra often found in the area at this time. In May, June and July they return from the east and south, transiting the TCA heading northwest and into the Manyara area.

Oryx and Eland - During the nineties, small groups of oryx (30–40) and eland (40–50) have been seen on the Lemiyon plains every year between the months of March and June. These animals do not appear to originate from the Tarangire National Park and it is suspected that they may be part of a population occupying the area between Tarangire and Lake Natron or from further north east of Lolkisale Mountain. Even with a reduction of negative human interference on these populations in the TCA and the appropriate management of plains and swamp habitats, there are fewer sightings in recent years. This can be attributed to human interference on a wider scale in the Tarangire ecosystem, the increase in the number of cleared areas for large scale farms north of Lolkisale and the increase in resident hunting and shooting of animals under crop protection. It is unlikely that these populations will increase without a concerted effort to educate and inform those on adjacent community and private lands.

Resident Wildlife – Herds of up to 800 buffalo have been seen at all times of year in the TCA on the wooded ridge separating the Tarangire National Park from Gosuwa swamp, and also to the north of Radilen Hill on the Naitolia floodplains during the rainy season. Buffalo are also regularly found in the riverine forests of the Tarangire River and its tributaries in the centre of the TCA.

There are also at least two resident groups of elephant, numbering 20–30, which circulate between the swamp environs to the east of the Boundary Hill Lodge Site and the forested slopes between Boundary Hill Lodge and Tarangire Treetops Lodge, as well as a smaller group near Naitolia. It is to be noted that, over the eight years that this project has been in the making, the population structure of these resident elephant has changed, there now being noticeably more young elephant in the family groups.

la hifadhi, kwenye eneo linalozunguka Naitolia, kwa muda mrefu zaidi kuelekea kwenye kipindi cha kiangazi cha mwezi wa Oktoba, wakiwa kwenye makundi yaliyotawanyikatawanyika. Makundi ya nyumbui hutumia muda mfupi ndani ya eneo la hifadhi na huhamia kusini mashariki zaidi upande wa Nyanda za Simanjiro kuelekea kwenye maeneo ya kuzalia kwenye Nyanda za Mifugo na Wanyamapori za Lolkisale, ingawa kwenye idadi chache. Angalia Kielelezo cha 8. Mfumo huu wa uhamaji ni tofauti na ule wa miaka 40 iliyopita wakati makundi makubwa yalihamu kutoka kwenye mbuga kupitia kaskazini kuelekea Manyara, Natron na Kilimanjaro Magharibi. Hali hii inadhaniwa kusababishwa na shughuli za binadamu upande wa kaskazini wa mbuga.

Mbwa mwitu – Makundi madogo ya mbwa mwitu huvuka TCA kutokea kaskazini kuelekea kusini nyakati tofautitofauti za mwaka. Mnamo Machi na Aprili mbwa hawa huonekana wakivuka kutokea kaskazini magharibi kuelekea kusini na mashariki. Wanadhaniwa kupiga pango kwenye msitu upande wa kaskazini ya Naitolia, wakiwinda makundi makubwa ya paa, kongoni na punda milia ambao mara nyingi hupatikana kwenye eneo hili kipindi hiki. Mnamo mwezi Mei, Juni na Julai wanarudi kutoka mashariki na kusini, wakipita TCA kuelekea kaskazini magharibi na kuin-gia eneo la Manyara.

Choroa na Pofu – Miaka ya tisini, makundi madogo ya choroa (30–40) na pofu (40–50) yalikuwa yakione-kana kwenye nyanda za Lemiyon kila mwaka kati ya miezi ya Machi na Juni. Wanyama hawa hawakuele-keea kutokea Mbuga ya Taifa ya Tarangire na inahisi-wa ya kwamba walikuwa sehemu ya idadi inayokaa kwenye kipindi ya Tarangire na Ziwa la Natron au kutoka kaskazini mashariki ya Mlima Lolkisale. Pamoja na upunguzaji uliyosababishwa na uingiliaji hasi wa binadamu kwenye hizi idadi ndani ya TCA na usimamizi unaofaa wa makazi ya nyanda na vinamasi, wanyama hawa huonekana kwa nadra miaka ya kari-buni. Hali hii inawezekana kutokana na uingiliaji wa binadamu kwa kiwango kikubwa kwenye ekosistim ya Tarangire, ongezeko la maeneo yanayotayarishwa kwa madhumuni ya mashamba makubwa ya biashara kaskazini mwa Lolkisale na kuongezeka kwa uwindaji na upigaji wa wanyama kwa kisingizio cha ulindaji wa mazao. Haielekei kama idadi hizi zitaongezeka bila ya juhudhi za pamoja kuelimisha na kutaarifu wale walio jirani na kwenye ardhi za binafsi.

Wanyamapori Wakazi – Makundi ya nyati hadi 800 huonekana kila kipindi katika mwaka kwenye TCA upande wa msitu kwenye mgongo unaotofautisha Mbuga ya Taifa ya Tarangire kutoka Kinamasi la Go-suwa, na pia kaskazini mwa Kilima cha Radilen kwenye tambarare za Naitolia nyakati za mvua. Nyati pia huonekana mara kwa mara kwenye misitu iliyo kando-kando mwa Mto wa Tarangire na vijitawi vyake kati-ki kati ya TCA.

There are two identified resident prides of lion in the TCA. One occupies a territory to the east of the Boundary Hill Lodge site while the other has a territory along the Tarangire River to the west of Tarangire Treetops Lodge. Lion populations have been previously perturbed by the impacts of tourist hunting, with the greatest impact on male lions, with juvenile males taking on more responsibility at younger ages. This was first noted by Lamprey in 1963.

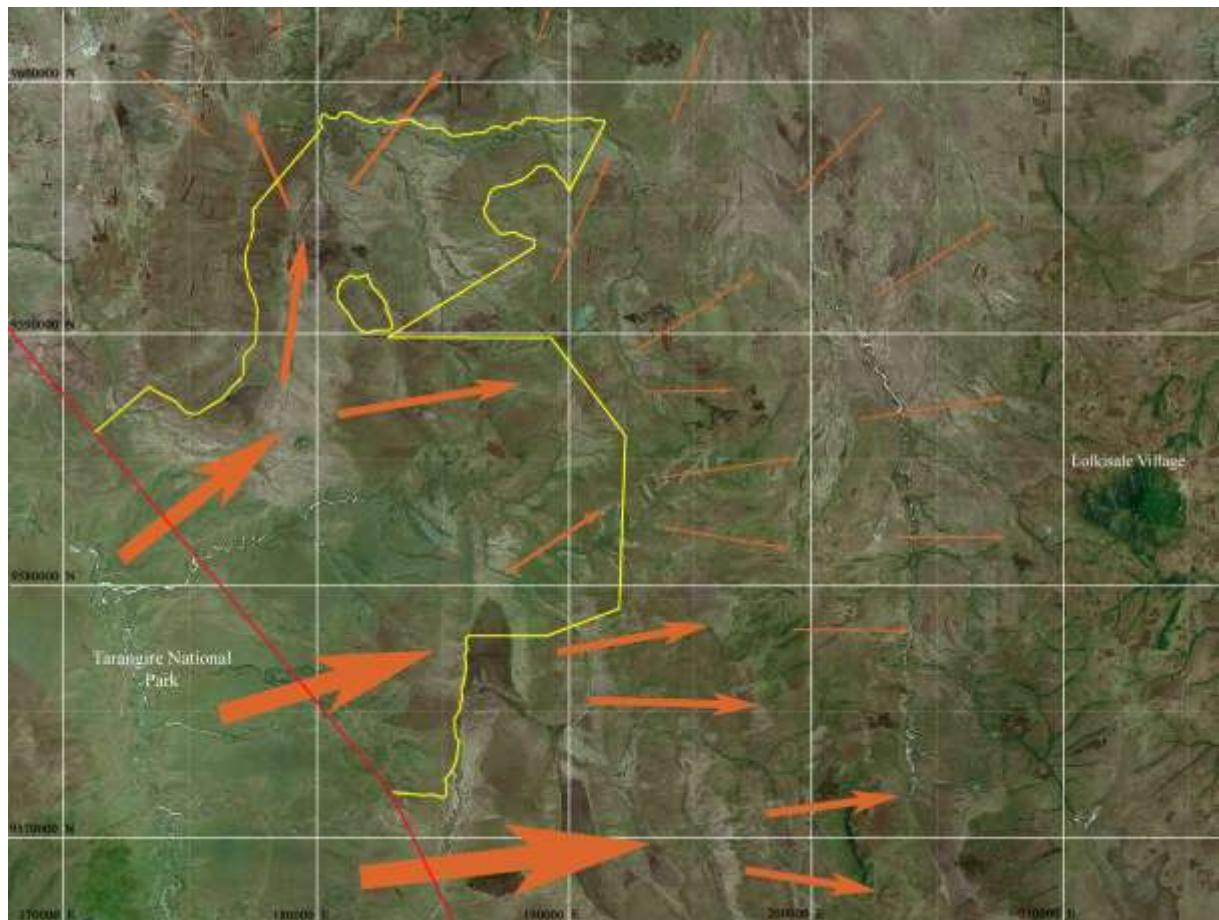
Sightings of other resident cat species such as leopard, serval, caracal, and cheetah are common in lightly wooded areas on the periphery of open grasslands.

Pia kuna ingalau makundi makazi mawili ya tembo, ambao wako kama 20–30, ambao huzunguka kati ya maeneo ya kinamasi upande wa mashariki wa eneo la hoteli ya Boundary Hill na misitu iliyio kwenye miteremko kati ya hoteli za Boundary Hill na Tarangire Treetops, pamoja na kundi dogo lililopo karibu na Naitolia. Ikumbukwe kwamba, zaidi ya miaka nane ya mradi huu, muundo wa idadi ya hawa tembo wakazi umebadilika, sasa hivi wanaonekana ndama wengi kwenye makundi ya familia.

Kuna makundi ya simba wakaizi mawili yanayojulikana kwenye TCA. Moja linamiliki eneo la mashariki ya eneo la hoteli ya Boundary Hill wakati lingine liko kandokando mwa Mto wa Tarangire upande wa magharibi wa hoteli ya Tarangire Treetops. Idadi ya simba awali imesumbuliwa na athari ya uwindaji wa watalii, hasa kwa simba wanaume, na hivyo kusababisha vijana kuchukua majukumu wangali wadogo. Hali hii iligunduliwa na Lamprey mwaka 1963.

Kuonekana kwa spishi makazi nyingine za aina ya paka kama vile chui, ngawa, caracal, na duma ni kawaida kwenye maeneo ya pori la wastani jirani na nyanda za wazi.

Figure 7: Zebra migration at the start of the short rains.
Kielelezo cha 7: Uhamaji wa Punda milia mwanzoni mwa mvua za vuli.



Kudu, which were not seen at all in the TCA eight years ago, are now seen relatively regularly north of Naitolia Camp in bush land. It is suspected that the reduction of the hunting and other human impact pressures in the Naitolia area over the last 10 years is directly responsible for the return of this species and further positive management strategies to remove negative impacts should see further population increases in the future in other areas of the TCA.

Gerenuk, which were seen irregularly seven years ago appear to have completely disappeared from this area. Again, human impact is suspected to be the main reason for this decline and it is unlikely that this species will reappear without an active programme of re-introduction.

Avifauna: There is no annotated checklist for the Tarangire Conservation Area. The Tanzania Atlas database holds records of 486 species from the Tarangire National Park, immediately adjacent to the TCA, and the total is likely to exceed 500. Three Tanzanian endemics, **Yellow-collared Lovebird**, **Ashy Starling** and **Rufus-tailed Weaver** have substantial populations within the park and a fourth, **Fischer's Lovebird**, reaches its eastern limit in Tarangire. Of special interest is the relatively high numbers of **Little Tawny Pipit**, a local and rare species in East Africa. The **Saddle-billed Stork**, a reasonably common bird in Tarangire, is to be found in wetland areas such as the Gosuwa Swamp.

Aim:

- Protect indigenous fauna within the conservation area and adjacent lands.
- Improve knowledge of the conservation area, including wildlife populations, migration routes, and threatening process.

Management Strategies:

- Identify areas in adjacent community lands of significant importance to the long term viability of the ecosystems wildlife populations and methods to assist in conserving those values.
- Establish and implement an appropriate long-term wildlife monitoring program, as part of a relevant ecosystem wide monitoring program.
- Map wildlife movements and number through the conservation area and assemble a database as a basis for further management strategies
- Establish ranger posts in areas of access and centrally with regular patrols, ensuring adequate coverage of the conservation area, anti-

Tandala ambaye hajaonekena TCA miaka nane sasa, siku hizi wanaonekana mara kwa mara kaskazini mwa kambi ya Naitolia huko porini. Inadhaniwa ya kwamba kupungua kwa uwindaji na mashinikizo mengine ya binadamu juu ya eneo la Naitolia kwa kipindi cha miaka 10 iliyopita ndio sababu ya kurudi kwa spishi hii na mikakati ya uhakika zaidi ya usimamizi itakayolenga kuondoa athari hasi inasababisha ongezeko la ziada la idadi za wanyamaporis kwenye maeneo mengine ya TCA.

Inaelekea kwamba aina ya wanyamaporis wa Gerenuk, amba walikuwa wanaonekana mara moja moja kati-ka miaka saba iliyopita, wamepotea kabisa kutoka kwenye eneo hili. Kwa mara ingine tena, athari za binadamu zinadhaniwa kuwa sababu kuu ya kupotea huko na haielekei kama spishi hii itatokea tena bila ya mradi kambabe wa kuwaanzisha tena.

Hakuna ufanuzi wa orodha ya kupima Eneo la Hifadhi la Tarangire. Atlasi ya Tanzania ina takwimu za spishi 486 kutoka Mbuga ya Taifa ya Tarangire, ilio jirani na TCA, na jumla kuu inaweza kuzidi 500. Aina tatu ya spishi wanaopatikana Tanzania, yaani: Yellow-collared Lovebird, Ashy Starling na Rufus-tailed Weaver wana idadi kubwa ndani ya eneo la mbuga na aina ya nne, Fischer's Lovebird, hufikia kilele chake cha mashariki ndani ya Tarangire. Wanosaababisha shauku ni idadi kubwa ya Little Tawny Pipit, spishi ya kienyeji na isiyo ya kawaida Afrika ya Mashariki. Aina ya Saddle-billed Stork, kwa kawaida hupatikana Tarangire, huonekana kwenye maeneo ya majimaji kama Kinamasi la Gosuwa.

Lengo:

- *Kulinda fauna wa kienyeji ndani ya eneo la hifadhi na kwenye ardhi za jirani.*
- *Boresha ujuzi juu ya eneo la hifadhi, pamoja na idadi za wanyamaporis, njia za uhamaji, na mfumo wa kutishia.*

Mikakati ya Usimamizi:

- *Kutambua maeneo ya ardhi ya jamii jirani ambazo zina umuhimu wa muda mrefu kuhusiana na uendelevu wa ekosistim kuhusu idadi za wanyamaporis na taratibu za kusaidia kwenye kuhifadhi hizo thamani.*
- *Kuunda na kutekeleza mpango wa ufuatiliaji wanyamaporis wa muda mrefu utakaofaa, ikiwa kama sehemu pana zaidi ya ekosistim ya ufuatiliaji utakaofaa.*
- *Onyesha uhamaji na idadi za wanyamaporis wanaopita eneo la hifadhi na kukusanya takwimu kama msingi wa mikakati ya usimamizi wa baadaye.*

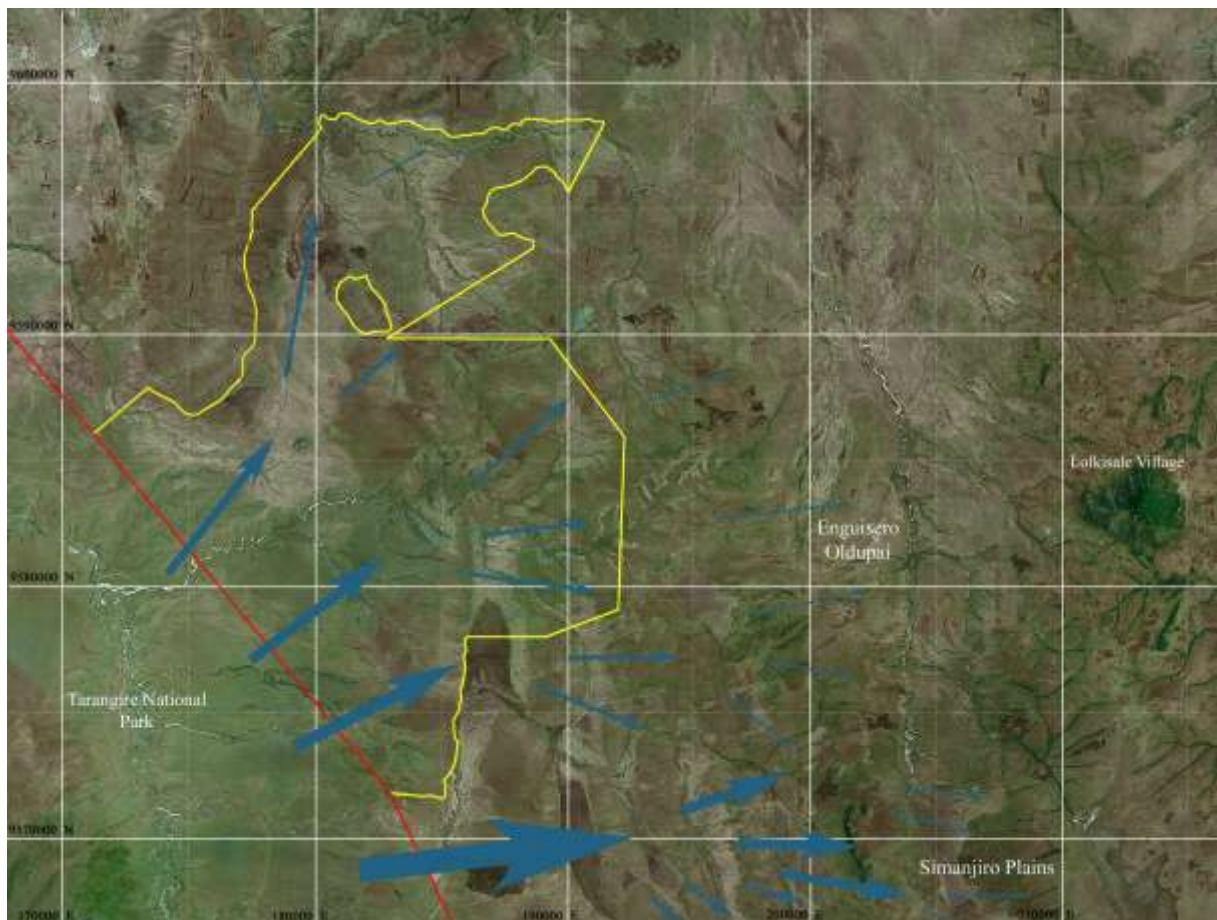
poaching patrols, charcoal management. See •
Figure 9.

- Create a strategy whereby the local communities, conservation area management and park authorities are involved in the setting of hunting quotas for areas adjacent to but outside the conservation area but within community partners village lands.
-

Kuunda vituo vya wahifadhi kwenye maeneo yanayofikika kirahisi na yaliyo katikati, na usimamizi wa doria ya kila mara, kuhakikisha ulinzi wa eneo la kutosha la hifadhi, doria dhidi ya majangili wanaowinda visivyo halali, usimamizi wa mkaa. Angalia Kielelezo cha 9.

Kuunda mkakati ambaa jamii za kienyeji, mamalaka ya usimamizi wa eneo la hifadhi na mbuga watashughulika kwenye kupanga sehemu za kuwinda kwenye maeneo ya jirani lakini nje ya eneo la hifadhi lakini ndani ya ardhi za jamii wabia.

Figure 8: Wildebeest migration at the start of the short rains.
Kielelezo cha 8: Uhamaji wa Kongoni mwanzoni mwa mvua za vuli.



Avifauna

Category 1: Globally threatened species

Aina ya 1 : Spishi ambazo zinatishiwa kwa jumla

Vulnerable

Ambazo ziko hatarini

Lesser Kestrel

Flocks of hundreds recently recorded during April when the Park provides abundant invertebrate food (following the beginning of the rains) and secure roost sites.

Makundi ya mamia karibuni yalirekodiwa kipindi cha Aprili wakati Mbuga ilikuwa na chakula kingi, wadudu, (kufuatia mwanzo wa mvua) na vituo salama vya viota yya ndege.

Karamoja Apalis

A single record in July 1998 (P. Oliver pers. comm.) may represent an extension of range (especially when considering recent records from Maswa G.R. and Serengeti N.P.)

Kumbukumbu moja iliyofanyika Julai 1998 (P. Oliver pers. comm.) inaweza kuwakilisha upanuzi wa sehemu wapatikanayo (has wakati wa kufikiria kumbukumbu za hivi karibuni zinazotoka Maswa G.R. na Serengeti N.P.)

Near-threatened

Ambazo zinakaribia kuwa hatarini

Fischer's Lovebird

An uncommon but regular visitor to Tarangire.

Syo wa kawaida lakini hutembelea Tarangire mara kwa mara.

Red-throated Tit

This East African endemic is a low density breeding species in the south-east of the park. Tarangire forms the western limit for the Maasai Steppe population.

Aina hii ipatikanya Afrika Mashariki tu ni spishi yenye msongamano wa kuzaliana wa kiwango cha chini kusini mashariki mwa mbuga ambayo huunda mpaka wa magharibi wa idadi ya Nyika ya Maasai.

Category 2 - restricted range species

Aina ya : Spishi zilizowekewa vikwazo

Endemic Bird Area 108 - Serengeti Plains

Eneno la Ndege la 108 – Nyanda za Serengeti

Fischer's Lovebird

See near-threatened category above.

Angalia aina zinazokaribia kuwa hatarini hapo juu.

Karamoja Apalis

See vulnerable category above.

Angalia aina ya zilizo hatarini hapo juu.

Rufous-tailed Weaver

Locally common especially in the northern sector of the Park.

Huonekana mara nyingi hasa upande wa kaskazini wa Mbuga.

Category 3 - biome restricted assemblages

Aina ya 3 – wale waliozuiliwa kwenye mazingira maalum

Somali-Masai

43 species (56%) out of a country total of 77.

spishi 43 (56%) kutoka jumla ya 77 ya nchi

Category 4.i. - 1% or more of biogeographical population

Aina ya 4.i. - 1% au zaidi ya idadi ya ki-biogeografia

Marabou Stork

10,000

Feb. 1992. I. Robertson in Baker 1997.

A:1,000

Common Pratincole

2,000

no date P. Oliver pers. comm.

C: 1,600

4.3.3 Landscapes

The spectacular landscape values of the Tarangire Conservation Area provides an important part of the visitors overall Tarangire experience. The grassland plains, the Gosuwa and Silale swamps from the highlands, the baobab/acacia mosaic, rift valley and Kilimanjaro/Meru views are all key elements of the landscape.

Key visual experiences include:

- The sweeping grassland plains dotted with majestic baobab trees.
- Sunset and sunrise views from high points such at Radilen Hill, Poachers Hill and Boundary Hill.
- Large herds of elephants and buffalo in the Gosuwa swamp.
- Impressive Sand River vistas with large fig trees overhanging the banks and the prints of a myriad of wildlife etched in the sand.
- Vistas north towards snow-capped Kilimanjaro and Mt Meru.



The appeal of many of these experiences is the absence of human development. Unmodified landscapes give a sense of remoteness and are an important experience and retreat for many visitors.

Aims

- Protect landscape values.
- Minimise the visual impact of signs, infrastructure and management activities associated with the conservation area.

Management Strategies

- Ensure that all future development is carried out within guidelines protecting landscape values.

4.3.3 Mandhari

Thamani za mandhari za kustaajabisha ndani ya Eneo la Hifadhi la Tarangire zinatoa sehemu muhimu ya tajriba ya jumla ya Tarangire. Nyanda za mbuga, vinamasi vya Gosuwa na Silale kutoka kwenye miinuko, mpangilio wa mibuyu / acacia, bonde la ufa na mandhari za Kilimanjaro / Meru zote ni sifa muhimu za mandhari.

- *Tajriba kuu za kuona ni pamoja na:*
- *Mbuga ya nyanda kwa jumla iliyojaa mibuyu ya adhima.*
- *Mandhari za magharibi na za machweo kutoka vilele vya juu vya kama vilima vya Radilen, Poachers na Boundary.*
- *Makundi makubwa ya tembo na nyati kwenye Kinamasi la Gosuwa.*
- *Mandhari ya Mto wa Sand zinazovutia pamoja na miti mikubwa ya tini inayoning'inia kwenye kingo, na alama za nyayo za idadi kubwa za wanyamapori zinazoonekana juu ya mchanga.*
- *Mandhari ya kaskazini kuelekea kwenye taji za theluji za milima ya Kilimanjaro na Meru.*

Kivutio cha wingi wa tajriba hizi ni kutokuwepo kwa maendeleo ya binadamu. Mandhari ambazo hazijababilishwa zinatoa hisia ya umbali / ukale hivyo ni tajriba muhimu na kimbilio kwa wageni.

Malengo

Thamani za utunzaji wa mandhari.

Kupunguza athari za kuwepo kwa alama, miundo mbinu na shughuli za usimamizi zinazohusiana na eneo la hifadhi.

Mikakati ya Usimamizi

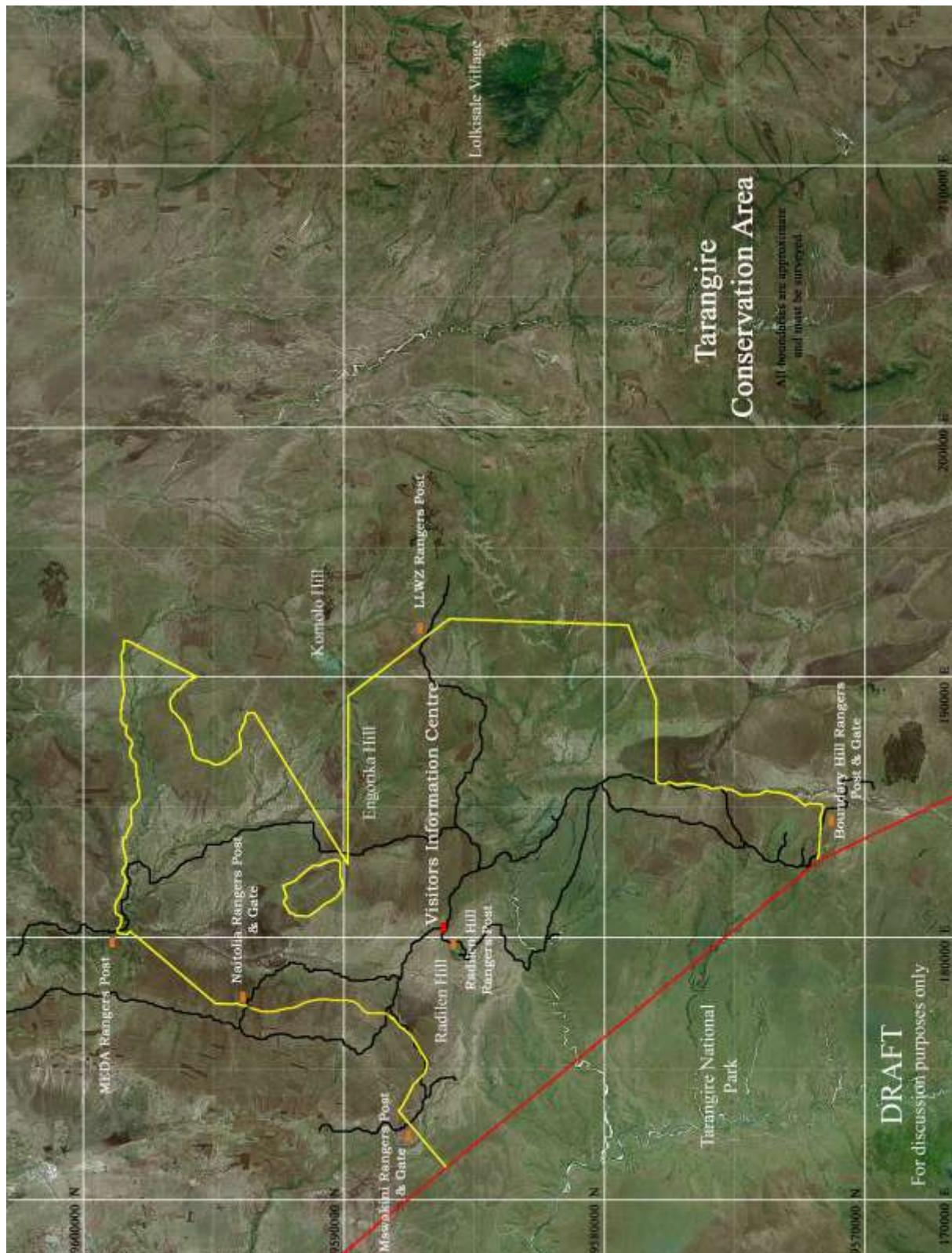
- *Kuhakikisha kwamba maendeleo yote ya baadaye yatafanyika kufuatana na miongozo ya kulinda thamani za mandhari.*
- *Kuhakikisha kwamba Viwango Vinavyoku-balika kwa Matumizi vinafuatwa kwa madhumuni ya kuendeleza dhana kuu ya kuona na hisia ya umbali / ukale.*
- *Kuhakikisha kwamba alama na mipaka inawekwa kwa njia ya kuleta athari ndogo juu ya thamani za mandhari, mandhari muhimu na tajriba maalum za kuona.*

- Ensure that Levels of Acceptable Use are adopted to maintain key visual and sense of remoteness.
- Ensure that signs and boundary makers have minimal impact on landscape values, key views and special visual experiences.
- Identify landscape elements of special importance to the visitors experience and ensure protection strategy is in place through zoning system and Environmental Impact Assessments of development.
- *Kutambua mandhari zenyе umuhimu maalum kwa tajriba ya wageni na kuhakikisha mkakati wa ulinzi upo kwenye mfumo wa ugawanyaji na maendeleo ya Tathmini za Athari za Mazingira.*



Sunset over the rift valley and Lake Manyara from Radilen Hill.
Bonde la Ufa na Ziwa Manyara kutoka Kilima cha Radilen wakati wa machweo ya juu

Figure 9: Proposed Rangers Post, entrance gates and visitors centre
Kielelezo cha 9: Mapendekezo ya kituo cha wahifadhi, milanoo mikuu na kituo cha wageni



5.0 Strategies for Cultural Values Conservation

Mikakati ya Hifadhi ya Thamani za Asili

5.1: Indigenous cultural heritage

The area around Tarangire has a long history of human settlement. The pictographs only 40 kilometres to the south of the park at Kolo, Pahi and Kisesse date back more than 9,000 years and show a rich history, not only of human cultural evolution but also of the variety and concentration of wildlife that has been found in the Tarangire area over the millenniums, depicting giraffe, rhinoceros, antelope, elephant, zebra and ostrich, to name a few.

Evidence suggests that at least seven different groups of people surrounded the reserve when it was gazetted in 1957, the four main ethnic groups in the Tarangire area being, the Maasai, Waarusha, Barbaig and Mbugwe. Even though most of these groups claims to have used and/or settled within the area that became Tarangire Game Reserve, the area was seen by administrators as having little or no population (past and present) due to its high concentration of tsetse flies. However the present of iron age settlement sites, visual remnants of hunting and gathering (such as dug out animal traps and honey hunting ‘ladders’ in baobab trees), and more importantly, the memory of people contradicts the tsetse fly narrative.

The Maasai are the most widely known and are readily identified of these groups. They have in the past practiced a nomadic livestock management system which is compatible with the wildlife and preservation of habitat. However with changing populations and migration of other ethnic groups into traditional Maasai areas, this pastoral existence has been changed to a more agro-pastoralist community.

The Barbaig also practice a nomadic pastoral system which is under threat from immigration and competition for resources, as with the Maasai.

The Waarusha are a sub tribe of the Maasai originally from the foothills of Mt Meru. Due to high land costs they have been forced into areas near Tarangire. They tend to have larger land holdings under cultivation with greater emphasis on cash crops.

The Mbugwe are traditionally hunters and agro-pastoralist who keep livestock as well as cultivating sorghum and millet for subsistence use. Being reliant on subsistence hunting has bought the Mbugwe into conflict situations with the wildlife authorities.

5.1: Urihi wa utamaduni wa kienyeji

Eneo linalozunguka Tarangire lina historia ndefu ya makazi ya binadamu. Taswira zilizopo kilomita 40 tu upande wa kusini wa mbuga sehemu za Kolo, Pahi na Kisesse zina zaidi ya miaka 9,000 na zinaonyesha historia yenye mambo mengi, siyo tu yanayohusu mabadiliko ya utamaduni wa binadamu lakini pia aina nyinigi na mkusanyo wa wanyamapori ambao wamepatikana kwenye eneo la Tarangire muda wa miaka mingi, maelfu na maelfu. Zinazoonyesha twiga, vifaru, paa, tembo, punda milia na mbuni, katika kuwataja wanyamapori wachache.

Ushahidi unaonyesha kwamba kulikuwa na ingalau makundi saba tofauti ya watu walioishi kuzunguka eneo la hifadhi wakati liliposajiliwa mwaka 1957, makundi manne makuu ndani ya eneo la Tarangire wakiwa WaMaasai, WaArusha, WaBarbaig na WaMbugwe. Ingawa wengi kati ya haya makundi wanadai kuwa walitumia na / au kuishi ndani ya eneo ambalo likawa Hifadhi ya Wanyamapori ya Tarangire, eneo linadhaniwa na watawala kwamba likiliwa na idadi ndogo au kulikuwa hakuna watu (zamani na sasa hivi) kutokana na kuwepo kwa ndorobo wengi. Lakini sehemu za sasa hivi zinazoonyesha makazi ya watu walitumia chuma, mabaki / dalili za picha za uwindaji na ukusanyaji (kama mitego ya wanyama iliyofukuliwa na ngazi za kupanda kwenye mibuyu wakati wa uwindaji wa asali), na muhimu ya yote, kumbukumbu za watu zinapinga hadithi ya ndorobo.

WaMaasai ndiyo wanaojulikana sana na wanaotambulika kirahisi katika makundi haya. Huko nyuma walitumia muundo wa kuhamahama na mifugo ambao kwa wakati ule, uliendana na wanyamapori na utunzaji wa mazingira. Lakini kutokana na mabadiliko ya idadi za watu na uhamiaji wa wenyeji wengine kwenye maeneo ya kijadi ya KiMaasai, mtindo huu wa ufugaji umewabdalisha kuwa jamii ya wakulima wenye mifugo.

Kama WaMaasai, WaBarbaig pia walitumia muundo wa kuhamahama na mifugo. Mtindo ambao unaathirika na tishio la uhamiaji na ushindani juu ya rasilimali

WaArusha ambao ni kabila dogo la WaMaasai wana-tokea kwenye safu ya Mlima Meru. Kutokana na bei kubwa za ardhi wamelazimika kuishi kwenye maeneo yaliyo karibu na Tarangire. Huwa wana tabia ya kuwa na mashamba makubwa wanayoyatumia zaidi kwa kulima mazao ya biashara.

The Kolo pictographs can provide a rewarding aspect to the resources available for visitors in the conservation area and national park. Along with a cultural tourism program in neighbouring villages and Lake Babati, this cannot only add to the visitors experience but provide an insight into the relationship between the land, the wildlife and the local communities over millennia. As well as providing another revenue stream for the local communities these cultural resources can encourage visitors to spend longer in and around the park.

Aims

- To promote a greater understanding of the local communities and their place in the land they live on.
- To identify and conserve historical and cultural resources within the areas adjacent to the conservation area.

Management Strategies

- To encourage the development of cultural tourism programs with community partners in villages adjacent to the conservation area .
- To promote and identify cultural sites, such as and including Kolo and Lake Babati, to broaden the overall experience of the visitor to the Tarangire ecosystem.

WaMbugwe wana asili ya uwindaji na kulima na kuwa na mifugo. Walikuwa na mifugo na pia walilima mtama na mtama kwa matumizi ya chakula. Utigemezi wao juu ya uwindaji kwa madhumuni ya chakula kulisababisha kujikuta kwenye hali ya ugomvi na mamlaka ya wanyamapori.

Taswira za Kolo zinaweza kutoa kiangazo macho kwa rasilimali zilizokuwepo kwa wageni ndani ya eneo la hifadhi na mbuga ya taifa. Pamoja na mpango wa utalii wa kitamaduni kwenye vijiji jirani na Babati taswira hizi hazongezi tajriba ya wageni tu bali pia zinatoa nafasi ya kupata ujuzi kuhusiano uliyokuwepo kati ya ardhi, wanyamapori na jamii za kienyeji maelfu ya miaka iliyopita. Pamoja na kuwa chanzo kingine cha mapato kwa jamii za kienyeji, hizi rasilimali za kitamaduni zinahamasisha wageni kukaa kwa muda mrefu ndani na kuzunguka mbuga.

Malengo

Kukuza uelewa mkubwa zaidi wa jamii za kienyeji na sehemu yao ndani ya ardhi yanayoishi

Kuzitambua na kuzihifadhi rasilimali za kihistoria na za kitamaduni ndani ya maeneo yaliyo jirani na eneo la hifadhi.

Mikakati ya Usimamizi

Kuhamasisha maendeleo ya mipango ya utalii wa kitamaduni pamoja na wabia wa jamii kwenye vijiji jirani na eneo la hifadhi.

Kukuza na kutambua sehemu za kitamaduni, kama zile na pamoja na Kolo na Lake Babati, kupanua tajriba ya jumla ya mgeni wa ekosistim ya Tarangire.



Pictographs located at Kolo south of Tarangire
Taswira zilizopo Kolo kusini mwa Tarangire

Figure 10: Lake Babati Locality Map

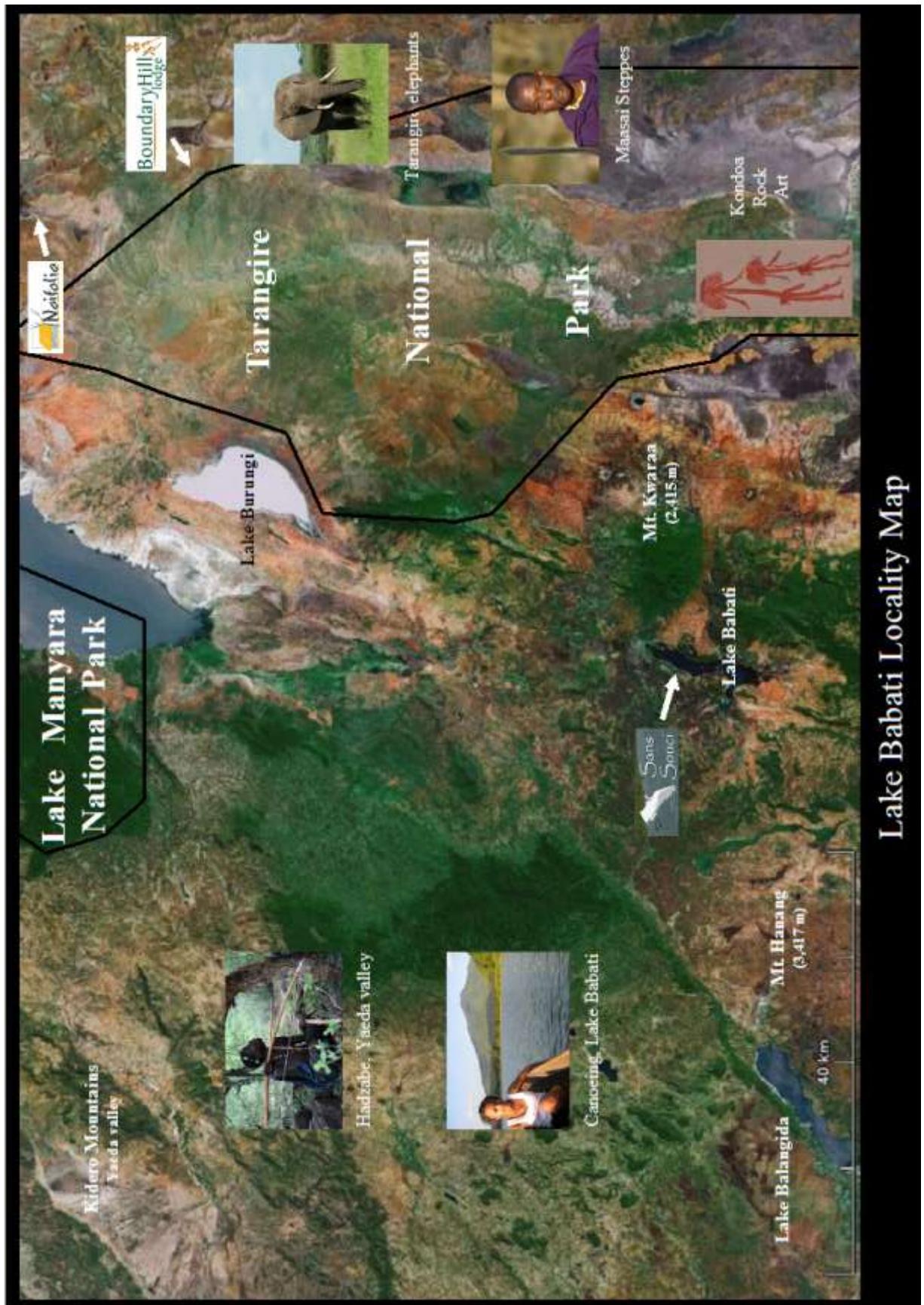
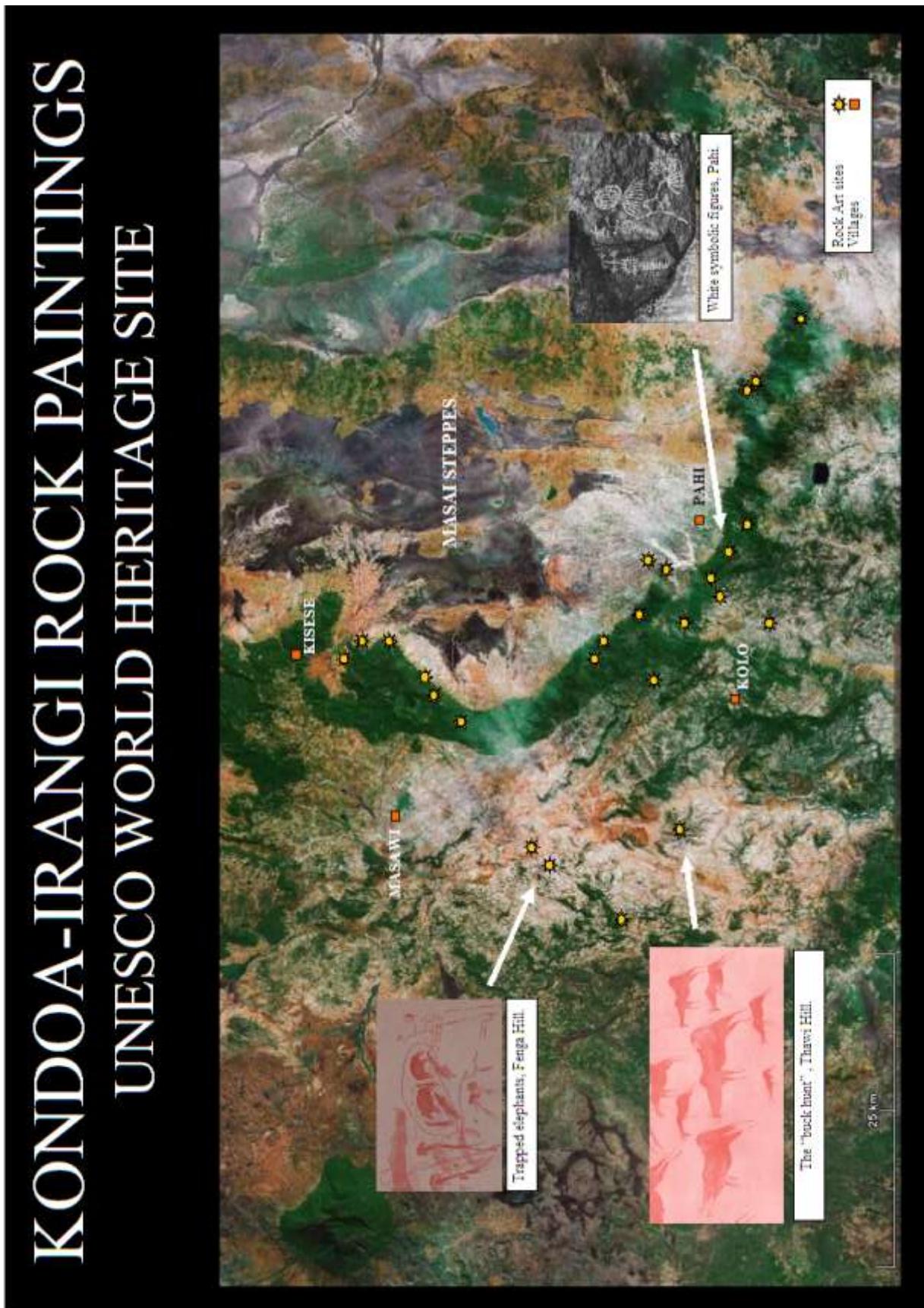


Figure 11: Konda-Irangi Rock Paintings



5.2: Historical heritage

The First World War began in East Africa in 1914 and did not end until 13th November 1918. Four empires and their subject peoples were engaged in a conflict which raged from modern Kenya in the north and into northern Mozambique in the south. Much of this conflict was fought in what was German East Africa and is now Tanzanian. Although known as “the forgotten front” or popularised as “the Germans who Never Lost”, the conflict was one of terrible human suffering set in some of the most tiring terrain in the world.

In chasing the Germans south towards the Central railway, the South African troops moving from Arusha to Kondoa had their first action at a rocky elevation known as Lolkisale. Lolkisale is a steep rocky mountain densely covered in thick bush. This action was to take place in early April during the height of the rainy season, but Lolkisale commanded the only water springs in the area, and by now despite the rains, the horses of the mounted brigade where suffering from thirst.

Lolkisale was eventually taken and is known as the first real defeat of the Germans in East Africa. However a number of askaris managed to escape down the southern slope and retreated towards Kondoa through Ufiami near Babati. The South African troops gave chase towards Kondoa. At night lions roared around their camp; lions where indeed so plentiful in the area that some of the troops scarcely troubled to look at them when they where sighted nearby. The brigades original strength of over twelve hundred troops was halved by malaria, dysentery and death. Eighty percent of the supply columns mules and horses died in the tsetse infected area.

Some of the march south was through what we now know as the black cotton soils of the Gosuwa and Silale swamps during the height of the long rains. Contemporary photographs show tents pitched on fields of mud, which can only have been the Silale area. The official map of the campaign shows the retreat from Lolkisale south between Boundary Hill and Kikoti Hill into what is now the park and towards a stop called Tarangire near the present Kuro Rangers post.

Although in East Africa little is know about the First World War, in South Africa there is a thriving small industry involving Boer War and First World War sites in Namibia.



Sunrise over Lolkisale Mountain as seen from Boundary Hill Lodge.

5.2: Urithi wa kihistoria

Vita vya Kwanza vya Dunia vilianza Afrika Mashariki mwaka 1914 na havikumalizika mpaka tarehe 13 Novemba 1918. Milki nne na watu wake walijhusisha na vita ambayo ilipigwa kuanzia Kenya ya leo kwa upande wa kaskazini hadi kaskazini ya Msumbiji kwa upande wa kusini. Sehemu kubwa ya vita hii ilipigwa kwenye eneo ambalo liliojulikana kama Afrika Mashariki ya Ujerumani ambayo ndiyo Tanzania ya leo. Ingawa ilijulikana kama “upande wa mbele uliosahaulika” au kusifika kama “Wajerumani amba hawakushindwa”, vita hii ni moja ya mateso makuu ya binadamu yaliyofanyika kwenye mojawapo ya mandhari za kuchosha hapa duniani.

Katika kuwafukuza Wajerumani kusini kuelekea reli ya Kati, majeshi ya Afrika ya Kusini yaliosafiri kutoka Arusha hadi Kondoa walipigana vita yao ya kwanza kwenye mwinuko wa mawe ulioitwa Lolkisale. Lolkisale ni mlima mkali wa mawe uliyofunikwa na pori nene. Vita hivi vilipigwa mwanzoni mwa Aprili wakati wa kilele cha kipindi cha mvua, lakini chemchem za maji za eneo hili zilikuwa Lolkisale tu, na pamoja na kuwa na mvua, farasi wa kikosi hiki walikuwa wanateseka na kiu.

Baadaye Lolkisale ilitekwa na ikajulikana kuwa angamizo la kwanza na wa kweli kwa Wajerumani kwenye eneo la Afrika Mashariki. Lakini askari wengi waliweza kutoroka kupitia mteremko wa kusini na kukimbia kuelekea Kondoa na Ufiami karibu na Babati. Majeshi ya Afrika ya Kusini yaliwakimbiza hadi Kondoa. Usiku simba walinguruma kuzunguka kambi yao; kwa kweli simba walikuwa wengi kwenye eneo hilo mpaka baadhi ya majeshi waliogopa walipoone-kana karibu nao. Kikosi cha zaidi ya askari elfu moja na mia mbili, kilipoteza nusu ya askari kwa sababu ya malaria, kuharisha damu na kifo. Asilimia themanini ya nyumbu na farasi walikufa kwenye eneo liliojaa ndorobo.

Baadhi ya matembezi ya kuelekea kusini yalikuwa kupita kwenye sehemu ambayo sasa hivi tunajua ina udongo wa aina ya “black cotton” wa vinamasi vya Gosuwa na Silale nyakati za kilele cha mvua za masika. Picha za wakati ule zinaonyesha mahema yaliyokuwa yamepigwa kwenye eneo ya matope, ambazo zinaelekea kuwa eneo la Silale tu. Ramani rasmi ya vita hiyo inaonyesha kimbilio la kutoka Lolkisale kusini mwa Kilima cha Boundary na Kilima cha Kikoti kuelekea kwenye mbuga ya siku hizi, na kuelekea kwenye kituo kilichoitwa Tarangire karibu na kituo cha wahifadhi cha Kuro cha sasa hivi.

Kwa upande wa Afrika Mashariki ni machache yanayojulikana kuhusu Vita vya Kwanza vya Dunia. Afrika Kusini kuna biashara ndogo iliyostawi nichini Namibia kuhusu sehemu za Vita vya Makaburu na Vita vya Kwanza vya Dunia.

Aim

- To broaden the diversity in the Tarangire area by incorporating historical sites in visitor experience.

Management Strategy

- To identify an organization which can promote and encourage historical cultural programs within the Tarangire Area utilizing community guides.

Lengo

- *Kupanua uanuwai wa eneo la Tarangire kwa kuingiza sehemu za historia kwenye tajriba ya wageni.*

Management Strategy/ Mikakati wa usimamizi

- *Kutambua / kuchagua shirika ambalo litaweza kukuza na kuhamasisha miradi ya historia ya kitamaduni ndani ya eneo la Tarangire Area kwa kutumia viongizi wa jamii.*



Belgian troops entering Tabora, September 1918.

6.0 Strategies for Visitors

Mikakati ya Wageni

6.1 Information and interpretation

Providing information, interpretation and education can help orientate and inform visitors, increase visitor enjoyment and satisfaction, foster an understanding and appreciation of the special natural and cultural values of the conservation area and park, build understanding of management activities, and help visitors to experience the area in a safe and responsible manner.

The Management of the Conservation Area delivers information, interpretation and education to visitors by various means, including its website (tarangireconservation.com), ranger patrols, signage, tourism brochures and other publications, information and visitors centre and through local tour operators.

6.1.1: Signage

The development of a uniform design and build criteria for all signage is particularly relevant. Signage should, while remaining subtle and unimposing, have a repeated theme that marks an association with the Conservation Area. Additionally signage should be of a sufficient build quality that it does not rapidly degrade or be overly susceptible to vandalism.

Signage should not be limited to directions and distances but should also show interpretative information such as type of activities permitted, habitat, flora and fauna to be encountered and major features.

See Appendix 1.

Aims

- To ensure that signage in the conservation area does not intrude on the landscape values of the conservation area.
- To develop signage to assist in the visitors experience within the conservation area.

Management Strategies

- Develop a standard criteria for design of signage..
- Maintain visitor signage and interpretative material and educational material appropriate for the conservation area in accordance with Appendix 1/ Kuendeleza alama.

6.1 Taarifa na Tasfiri

Utoaji maelezo, tafsiri na elimu kunaweza kusaidia kuelewesha na kutaarifu wageni, kuongeza raha na ridhaa yao, kukuza kuelewa na kuthamini thamani maalum za kitamaduni na kiasili za eneo na mbuga ya hifadhi, kujenga uelewa wa shughuli za usimamizi, na kusaidia wageni kuzoea eneo katika hali ya usalama na ya kuwajibika.

Menejimenti ya Eneo la Hifadhi linatoa maelezo, tafsiri na elimu kwa wageni kwa kutumia njia nyingi, ambazo ni pamoja na kuwa na website (tarangireconservation.com), doria za wahifadhi, vibao vya alama, maganda ya utalii na chapisho nyingine, kituo cha maelezo na cha wageni na kupitia waendesha safari za watalii.

6.1.1: Alama

Kuunda kwa ubunifu unaofanana na ujenzi wa vibao vya alama ni kazi yenye umuhimu rasmi. Wakati ni muhimu kwa alama / ishara kuwa pambanuzi na zisizo za kuvutia sana, zinatakiwa hasa kuwa na dhamira itakayorudia mara kwa mara kuonyesha uhusiano uliopo na Eneo la Hifadhi. Pia vibao vya alama viwe na ubora ambao hautasababisha uchakavu au kuweza kuharibiwa kirahisi.

Vibao vya alama visiwe vya kuonyesha ishara na umbali tu bali viwe na taarifa iliyotafsiriwa kama aina za shughuli zinazoruhusiwa, makazi, mimea na fauna waliopo na sehemu muhimu.

Angalia Kiambatisho cha 1.

Malengo

- Kuhakikisha ya kwamba vibao vya alama ndani ya eneo la hifadhi havitaingilia thamani za eneo la hifadhi.
- Kuunda vibao vya alama vitakavyosaidia / ongeza tajriba ya wageni ndani ya eneo la hifadhi.

Mikakati ya usimamizi

- Kuunda viwango vya vigezo vya kubuni alama.
- Kuendeleza alama / ishara za wageni taarifa zenye tafsiri na elimu inayofaa kwenye eneo la hifadhi kufuatana na Kiambatisho cha 1.

6.1.2: Visitors' centre

An interpretative centre which showcases the natural and heritage values of the Tarangire Conservation Area and broader Tarangire ecosystem is identified as a priority. The location of this visitors' centre will be approximately one kilometre to the north of the Radilen Rangers post located on the slope of a small hill. This site was chosen as being in an area of permanent access and hidden from any other tourist facilities. This should be a simple structure with a number of vertical visual displays as shown in Appendix 2.

This visitors' centre will also be the main entrance gate where visitor and transit fees are collected, and where rangers and guides are available for interpreting information for visitors.

Aims

- Promote and encourage visitors to discover, enjoy and appreciate the Conservation Area and ecosystem natural and cultural values in a safe and appropriate manner through information, interpretation and education.
- Encourage community support for conservation area management practices.

Management Strategies

Target visitors across a range of user groups through a range of tourism, information, interpretation and education media, for example mammal, bird and reptile checklists (see Appendix 3), walking guides, information displays, maps.

O Deliver messages to visitors about the following values and themes:

- habitats associated with the conservation area and Tarangire ecosystem;
- relationships between the Tarangire Conservation Area and the local communities;
- the importance of the cultural and historical heritage and development of the Tarangire area;
- flora and fauna interactions within the conservation area, particular the elephant populations, the zebra and wildebeest migrations, baobab and acacia mosaic, and varied birdlife;
- Appropriate behaviours, including minimal impact techniques and adherence to codes of conduct appropriate to visitor activities, to protect conservation values and maximise visitor safety;

6.1.2: Kituo cha Wageni

Kuwepo kwa kituo cha maelezo ambacho kitaonyesha thamani za asili na za urithi za eneo la hifadhi la Tarangire na ekosistim yake kwa mapana zaidi ndiyo kipau mbele. Kituo hiki kitakuwa kama kilomita moja upande wa kaskazini wa kituo cha wahidhafi cha Radilen kilichopo kwenye mteremko wa kilima kidogo. Eneo hili limechaguliwa kuwa kwenye eneo linalojikika kiurahisi na limejificha kutoka sehemu nyiningine za huduma ya watalii. Liwe na umbo la kawaida bila ya madoido na liwe na maonyesho mengi ya wima kama inavyoonekana kwenye Kiambatisho cha 2.

Kituo hiki pia kitakuwa lango kuu la kuingilia ambapo ada za wageni na za kupita zitakusanywa, na ambapo wahifadhi na viongozi watapatikana kwa madhumuni ya kufasiri maelezo kwa wageni.

Malengo

- *Kukuza na kuhamasisha wageni kugundua, kufaidi na kuthamini Eneo la Hifadhi na thamani za asili na za kitamaduni za ekosistim kwenye hali ya usalama na inayofaa kwa kupitia maelezo, fasiri na elimu.*
- *Kuhamasisha jamii kuhimili taratibu za usimamiji wa hifadhi.*

Mikakati ya usimamizi

Kulenga wageni walio kwenye makundi ya watumiaji kwa kupitia njia za utalii, maelezo, tafsiri na za elimu, kwa mfano orodha kaguzi za mamalia, ndege na watambaazi (angalia Kiambatisho cha 3), viongozi kwenye safari za kutembea, maonyesho yenyne maelezo, ramani.

O *Toa maelezo kwa wageni kuhusu thamani na dhamira zifuatazo:*

- *Makazi yanayohusiana na eneo la hifadhi na ekosistim ya Tarangire;*
- *Uhusiano kati ya Eneo la Hifadhi la Tarangire jamii za kienyeji;*
- *Umuhimu wa urithi wa kitamaduni na kihistoria na maendeleo ya eneo la Tarangire;*
- *Jinsi mimea na fauna vinavyoathiriana ndani ya eneo la hifadhi, hasa jamii za tembo, uhamaji wa punda milia na kongoni, mipangilio ya mibuyu na acacia, na maisha ya ndege mbalimbali;*
- *Tabia zinazofaa, pamoja na mitindo ya athari*

- Regularly evaluate information and interpretative programs related to the conservation area;
- In partnership with local schools, develop and integrate conservation themes into a range of subjects as well as specialised educational resources about the conservation area.

ndogo na kushikilia kanuni za maadili mema zinazofaa kwa shughuli za wageni, kulinda thamani za hifadhi na hakikisha usalama wa hali ya juu wa mgeni.

- *Mara kwa mara tathmini mipango ya habari na tafsiri inayohusiana na eneo la hifadhi.*
- *Kwa ushirikiano na shule za jamii jirani, unda na unganisha dhamira za hifadhi kwenye masomo yao na pia rasilimali za elimu maalum zitakazohusiana na eneo la hifadhi.*

6.1.3: Tourist facilities

The provision of tourist facilities within the conservation area and neighbouring community lands should provide a wide variety of different perspectives as well as providing a revenue resource for each of the villages participating in the conservation area management. At present there are four permanent facilities within the conservation area as shown in the following table.

Facility <i>Huduma</i>	Size <i>Ukubwa</i>	Description <i>Maelezo</i>	Villages <i>Vijiji</i>	Management <i>Usimamizi</i>
Naitolia Camp	8 beds	Rustic permanent camp made of local materials comprising three huts and one tree house.	Naitolia, Mswakini and Makuyuni.	The East African Safari and Touring Company.
Tarangire Tree Tops	40 beds	Permanent lodge built around baobab tree with some rooms built as tree houses. Swimming pool.	Lolkisale.	Elewana Africa.
Boundary Hill Lodge	16 beds	Permanent lodge built in and amongst rocks on a high ridge. Swimming pool.	Lolkisale.	Boundary Hill Lodge, with Lolkisale Village owning 50%.
Sidai Camp.	4 beds	Semi permanent tented camp.	Lolkisale	Boundary Hill Lodge.

For the conservation area to be successful amongst the local community's there must be an equitable sharing of revenue from the conservation area and identification by the communities with the tourist facilities. Lolkisale village has a strong affiliation with the conservation area since they strongly identify with Boundary Hill Lodge and Tarangire Treetops. This relationship has not been as strong in the Naitolia Concession Area, with conflict arising at various stages over the last 10 years over the revenue stream from Naitolia Camp, mainly due to there being three villages and also that the camp is small in comparison to Treetops and Boundary Hill. By establishing two additional small tourist facilities in the Naitolia Concession Area and in the Makuyuni Elephant Dispersal Area each community will have a facility which they can readily identify with.

The revenue streams must also be modified so that although the majority of community fees go towards

6.1.3: Huduma za watalii

Utoaji wa huduma za watalii ndani ya eneo la hifadhi na ardhi ya jamii jirani kutaleta aina nyingi ya mita zamo pamoja na kuleta rasilimali ya kipato kwa kila kijiji kitakachoshiriki kwenye usimamizi wa eneo la hifadhi. Kwa sasa hivi kuna sehemu za huduma za kudumu nne ndani ya eneo la hifadhi kama ilivyoonyeshwa kwenye jedwali lifuatalo.

Ili eneo la hifadhi liwe na mafanikio mionganoni mwa jamii ya kienyeji, ni lazima kuwe na ugawanyaji wa haki wa mapato yanayotoka kwenye eneo la hifadhi na kujihusisha kwa jamii zenye huduma za watalii. Kijiji cha Lolkisale kina ushirikiano mkubwa na eneo la hifadhi kwa vile wanajihuisha sana na hoteli za Boundary Hill na Tarangire Treetops. Uhusiano wa aina huu haukuwepo kwenye Eneo la Milki la Naitolia, ambako kulikuwa na mafarakano ya mara kwa mara katika miaka 10 iliyopita kutokana na mapato yaliyokuwa yanatoka Kambi ya Naitolia, hasa kwa vile kuna vijiji vitatu na pia kambi husika ni ndogo ikilinganishwa na hoteli za Treetops na Boundary Hill. Kwa kuwa na sehemu ndogo mbili za ziada ndani ya Eneo la Milki la Naitolia na ndani ya Eneo Tawanyishi la Tembo Makuyuni, kila jamii itakuwa na huduma yake ambayo itaweza kujihusisha nayo kirahisi.

Mitiririko ya mapato lazima ibadilishwe ili ingawa sehemu kubwa ya ada za jamii zinaenda kwenye

development within the villages associated with the tourist facility, a small percentage from all facilities must also be set aside for community development in other communities not directly involved in the Tarangire Conservation Area but as we have seen are intricately linked to the broader ecosystem. Within the Lolkisale Livestock and Wildlife zone it is also proposed to develop a small facility which although initially will be used as a hunting camp for areas outside the Conservation Area, but hopefully in the future as hunting is phased down as a photographic/hunting facility. The following table shows the existing and planned development of tourist facilities and Figure 10 shows the proposed location.

maendeleo ya vijiji vinavyojihuisha na huduma ya watalii, asilimia ndogo kutoka kwenye huduma zote lazima itengwe kwa maendeleo ya jamii jirani ambao hawahusiki moja kwa moja na Eneo la Hifadhi la Tarangire lakini kutokana na jinsi tulivyoona, kwa namna moja au nyingine wanaunganishwa kwenye mfumo ekosistim pana zaidi. Ndani ya Eneo la Mifugo na Wanyamapori wa Lolkisale, inapendekezwa ku-jengwe huduma ndogo ambayo ingawa mwanzoni itatumika kama kambi ya uwindaji kwa maeneo ya nje ya Eneo la Hifadhi, lakini kwa baadaye uwindaji uta-pungua na hiyyo kuwa sehemu ya kupiga picha / uwindaji. Jedwali linalofuata linaonyesha maendeleo yali-yopo na yaliyopangwa kwa baadaye na Kielelezo cha 10 kinaonyeshwa sehemu inayopendekezwa.

Facility	Size	Description	Villages	Management
Naitolia Camp	12 beds	Rustic permanent camp made of local materials comprising three huts and three tree houses.	Naitolia.	The East African Safari and Touring Company.
Tarangire Tree Tops	40 beds	Permanent lodge built around baobab tree with some rooms built as tree houses. Swimming pool.	Lolkisale.	Elewana Africa.
Boundary Hill Lodge	16 beds	Permanent lodge built in and amongst rocks on a high ridge. Swimming pool.	Lolkisale.	Boundary Hill Lodge, with Lolkisale Village owning 50%.
Sidai Camp.	4 beds	Semi permanent tented camp.	Lolkisale.	Boundary Hill Lodge.
MEDA Camp.	12 beds	Semi permanent tented camp.	Makuyuni.	To be decided.
Mswakini Camp.	12 beds	Semi permanent tented camp.	Mswakini Juu.	To be decided.
LLWZ Camp.	16 beds	Permanent camp.	Lolkisale.	To be decided.

6.1.4: Limits of acceptable use

The Limits of Acceptable Use system for the Conservation Area is based on that used in the Tarangire National Park as per the current General Management Plan. This system has primary emphasis on the conditions desired as per the natural, cultural and visitor values rather than on the maximum amount of use and development the conservation area can tolerate.

The tables on the following pages show the Tarangire National Park Limits for Acceptable Use for each Management Zone as a comparison to that of the conservation area with planned and existing facilities.

6.1.4: Vikomo vya Matumizi Yanayokubalika

Mfumo wa Vikomo vya Matumizi Yanayokubalika wa Eneo la Hifadhi una msingi wa ule unaotumika kwenye Mbuga ya Hifadhi ya Taifa kutokana na Mpango wa Usimamizi wa Jumla wa sasa hivi. Mfumo huu unatilia mkazo juu ya masharti yanayotakiwa kufuatana na thamani za asili, tamaduni na mgeni kuliko kuwa na msisitizo juu ya matumizi na maendeleo ya upeo wa ambaa eneo la hifadhi linaweza kuvumilia.

Jedwali zifuatazo zinaonyesha Vikomo vya Matumizi Yanayokubalika kwa kila Kanda ya Usimamizi zikilin-ganishwa na eneo la hifadhi lenye huduma zilizopangwa na zilizopo.

Tarangire National Park Management Zone	Size Sq kms	No of permanent beds	No of campsite beds
Core Preservation Zone	377 sq kms	none	none
Conservation General Use Zone West	555 sq kms	132	236
Conservation General Use Zone East	77 sq kms	150	128
Semi Wilderness Zone	373 sq kms	24	48
Wilderness Zone	1,267 sq kms	none	40
Total	2,649 sq kms	306	452

Tarangire Conservation Area	Size Sq kms	Planned no of permanent beds	No of campsite beds
Naitolia Concession Area	55 sq kms	24	none
Makuyuni Elephant Dispersal Area	38 sq kms	12	none
Lolkisale Conservation Area	164 sq kms	60	24
Lolkisale Livestock and Wildlife Zone.	328 sq kms	16	24
Total	585 sq kms	112	48

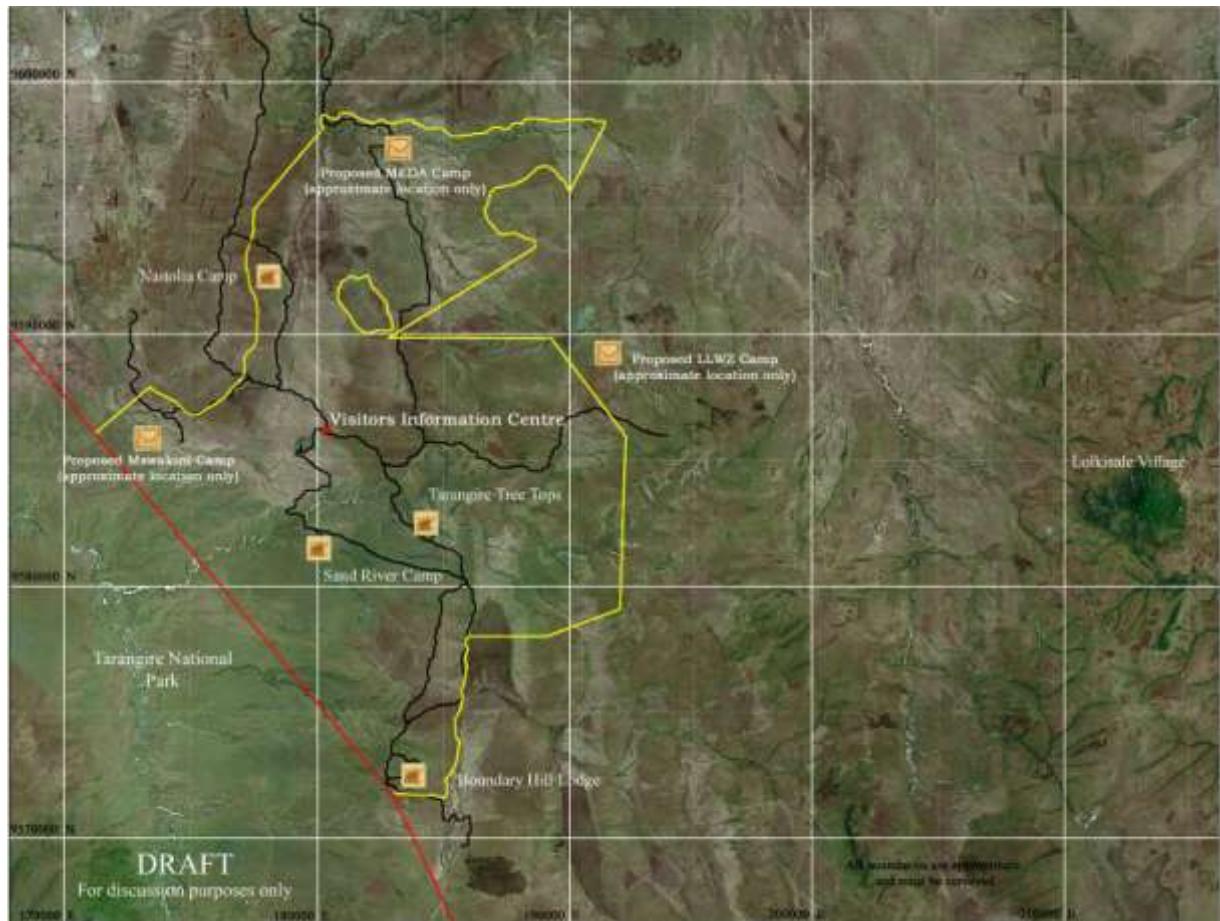
The planned number of beds per sq kilometre in the conservation area is 0.27, compared to that of the national park of 0.15 for the entire park, and 0.54 if the bottom half, which is the wilderness zone with limited access, is not included. If we also consider that nearly all visitors staying in the conservation area will be conducting nearly all their game drives within the park and will be utilizing the conservation area for less intrusive activities such as walking safaris, fly camps and only for accommodation, then the 0.27 beds per sq kilometres is well within acceptable limits of use.

The more sensitive areas with regards to landscape and natural values in the Naitolia Concession Area and Makuyuni Elephant Dispersal Area have smaller facilities to ensure minimum impact.

Idadi ya nambari ya vitanda vilivyopangwa kwa kila kilomita ya mraba ndani ya eneo la hifadhi ni 0.27, kulinganisha na vile kwenye mbuga ya taifa ambayo ni 0.15 kwa mbuga nzima, na 0.54 iwapo nusu ya chini, ambayo ni kanda mwitu isiyofikika kirahisi, haihe-sabiwi. Iwapo pia tunafikiria wageni wote wanaolala ndani ya eneo la hifadhi watatembea kuangalia wanyama ndani ya mbuga na watakuwa wanatumia eneo la hifadhi kwa shughuli zisizo haribifu kama safari za kutembea kwa miguu, kambi za mahema na kwa kulala tu, hivyo basi idadi ya vitanda 0.27 kwa kila kilomita ya mraba itakuwa chini ya vikomo vya matumizi vinyayokubalika.

Maeneo yaliyo mepesi kuathirika hasa kwa upande wa thamani za mandhari na za asili ndani ya Eneo la Miliki la Naitolia na Eneo la Tawanyishi la Tembo la Makuyuni yana huduma ndogo zaidi kwa madhumuni ya kuhakikisha athari ndogo.

Figure 12: Existing and Proposed Tourist Facilities.
Kielelezo cha 10: Huduma za Watalii zilizopo na zinazopendekezwa



Aims

- To ensure that a variety of tourist facilities are available to enhance the visitors experience.
- To develop facilities to encourage all partner communities to partake in the conservation area.

Management Strategies

- Develop additional tourist facilities in line with acceptable use limits and natural and landscape values.

Malengo

- *Kuhakikisha ya kwamba huduma mbali mbali za watalii zitakuwepo kwa madhumuni ya kuon-geza tajriba ya wageni.*

Kuunda huduma za kuhamasisha jamii wabia wote kushiriki kwenye eneo la hifadhi.

Mikakati ya Usimamizi

- *Kuendeleza huduma za watalii za ziada kufuatana na vikomo vyat matumizi yaliyokubalika na thamani za asili na za mandhari.*

7.0 Strategies for Community Awareness and Administration

Mikakati ya Utambuzi na Utawala wa jamii

7.1 Community Awareness

Raising the community's awareness of the values of the conservation area is an essential step in developing people's sense of custodianship of it, and their engagement in the management of the area. People are more likely to develop a sense of custodianship for the conservation area if their views and values are respected. A strong connection with the conservation area among visitors and the local and broader community assists in broader public education, raising awareness and reaching others in the community.

Education and interpretation programs play an important role in raising the awareness of the conservation area in the wider community. Already community awareness has increased through a number of public meetings and development projects in surrounding communities.

Aims

- Increase the community's awareness and understanding of the conservation area's values and management activities in the area.
- Build a sense of shared ownership and custodianship for the conservation area among community groups and individuals.

Management Strategies

- Investigate opportunities to develop offsite interpretative facilities to increase awareness of the conservation area within collaborating village communities.
- Develop broader community awareness of the opportunities to make a difference to the management of the conservation area through taking shared responsibility and becoming directly involved in it.
- Increase public awareness and understanding of significant conservation area values and management activities through local media, schools and communities.

7.1 Utambuzi wa Jamii

Kupandisha kiwango cha utambuzi wa jamii juu ya thamani za eneo la hifadhi ni hatua muhimu kwenye kuendeleza hisia za kulielewa eneo, na kujihusisha kwenye usimamizi wake. Watu wana uwezo mkubwa kupata hisia ya ulezi wa eneo la hifadhi iwapo maoni yao na thamani zao zinaheshimiwa. Uhusiano mkubwa na eneo mionganini mwa wageni na jamii za kienyeji na nyinginezo zitasaidia kwenye elimu ya umma, uongezaji elimu na ufikiaji kwa wengine katika jamii.

Mipango ya elimu na tafsiri ina nafasi kubwa kwenye uongezaji wa utambuzi ya eneo la hifadhi kwa jamii kwa ujumla. Tayari utambuzi wa jamii umeongezeka kutokana na mlolongo wa mikutano ya hadhara na miradi ya maendeleo kwenye jamii jirani.

Malengo

- *Kuungeza utambuzi na uelewa wa jamii juu ya thamani za eneo la Hifadhi na shughuli za usimamizi kwenye eneo.*
- *Kujenga hisia ya umilikaji wa pamoja na uleaji wa eneo la hifadhi mionganini mwa makundi ya jamii na watu binafsi.*

Mikakati ya Usimamizi

- *Chunguza fursa za kuendeleza huduma za maelezo kwa madhumuni ya kuungeza utambuzi wa eneo la hifadhi ndani ya jamii za vijijivivyojihusisha.*
- *Chunguza fursa za kuendeleza huduma za maelezo kwa madhumuni ya kuungeza utambuzi wa eneo la hifadhi ndani ya jamii za vijijivivyojihusisha.*
- *Kuungeza utambuzi wa umma na uelewaji wa thamani maalum za hifadhi na shughuli za usimamizi kuititia vyombo vya habari, mashule na jamii.*

7.2 Stakeholder partnerships

Although the Tarangire Conservation Area is managed on behalf of the local communities; agencies and government departments such at the Wildlife Division and TANAPA are important and necessary stakeholders in the area. In the planning of the Tarangire Conservation Area Management Plan and initial work on the LCA Management Plan have benefited from the ongoing research and monitoring work of several institutions in the Tarangire region. The data made available by these institutions will also provide a valuable baseline for future monitoring activities by the project. These institutions include:

Istituto Oikos. The Tanzania branch of the Istituto Oikos, together with the Varese branch of the University of Insubria (Italy) and in cooperation with TANAPA, manages the Tarangire Manyara Conservation Project (TCP) which has been studying a large range of natural resource values in the Tarangire ecosystem. Particularly valuable data from this project include a participatory land use survey, performed by Oikos, in Lolakisale village, and data on large mammal movements through the LCA and peripheral areas. Oikos have expressed a firm interest in developing a monitoring program for the TCA, utilizing village game scouts to produce data sets comparable to those being produced by TANAPA for TNP.

Conservation Information and Monitoring Unit (CIMU). Under the Tanzania Wildlife Research Institute, the CIMU program conducts aerial wildlife surveys and aerial total counts of buffalo and elephant in the Tarangire ecosystem every few years. The LBCSP area is included in these surveys and will benefit from the information generated on the large mammal population sizes and distributions.

The Tarangire Elephant Project (TEP). The TEP is studying the long-term effects of poaching on Tarangire elephants and is monitoring the demographic changes in the population. The TEP is also assisting in the protection of key elephant dispersal areas outside the national park and has already provided valuable help in the identification of the MEDA.

It is important to also recognize the need to support community projects in surrounding villages which although have the natural resources may not have the financial resources to promote ecotourism in their communities.

Aims/ Malengo

- Enhance management of the conservation area by collaborating with government and non government agencies to ensure that they give appropriate consideration to park and sanctuary values in planning and implementing activities that relate to the planning area.

7.2 Ubia wa wadau

Ingawa Eneo la Hifadhi la Tarangire linasimamiwa kwa niaba ya jamii za kienyeji; mashirika na idara za serikali kama Idara ya Wanyamapori na TANAPA ni wadau wa muhimu na wa lazima kwenye eneo hili. Kwenye kupanga Mpango wa Usimamizi wa Eneo la Hifadhi la Tarangire na kazi ya mwanzo ya Mpango wa Usimamizi wa LCA, yote hii imefaidika kutokana na utafiti na ufuatiliaji unaoendelea wa mashirika mengi kwenye sehemu ya Tarangire. Takwimu zinazotolewa na haya mashirika pia zitatoa msingi wa thamani wa shughuli za ufuatiliaji za baadaye. Mashirika hayo ni pamoja na:

Istituto Oikos. *Tawi la Istituto Oikos lililopo Tanzania, pamoja na tawi la Varese la Chuo Kikuu cha Insubria (Italia), wakishirikiana na TANAPA wanasi-mmia Mradi wa Hifadhi wa Tarangire Manyara (TCP) ambaa umekuwa unaangalia thamani za rasilimali ya asili nyingi ndani ya mfumo wa ekosistim ya Tarangire. Takwimu za thamani zinazotokana na mradi huu ni pamoja na uchunguzi juu ya matumizi ya ardhi shirikishwaji, uliyofanyika na Oikos, kwenye Kijiji cha Lolakisale, na takwimu juu ya miendo ya mamalia wakubwa kupita LCA na maeneo ya jirani. Oikos wameonyesha shauku kubwa ya kuendeleza mpango wa ufuatiliaji wa TCA, kwa kutumia askari wa vijiji kutoa seti za takwimu zitakazolingana na zile zinazotolewa na TANAPA kwa TNP.*

Kitengo cha Maelezo ya Hifadhi na Ufuatiliaji (CIMU): *Chini ya Chuo cha Utafiti wa Wanyamapori cha Tanzania, mpango wa CIMU utaendesha ukaguzi wa wanyamapori kutoka angani na kuhesabu kutoka angani idadi za nyati na tembo waliopo ndani ya mfumo wa wanyama ya Tarangire baada ya kila m-aka michache. Eneo la LBCSP limeunganishwa kwenye kaguzi hizi na litafaidika na taarifa zitakazotoka juu ya ukubwa na ugawanyikaji wa idadi za mamalia wakubwa.*

Mradi wa Tembo wa Tarangire (TEP). *TEP inachunguza athari za muda mrefu za ujangili dhidi ya tembo wa Tarangire na unaufatilia mabadiliko ya kidemografia ya idadi zao. TEP pia inasaidia katika utunzaji wa maeneo muhimu ya utawanyikaji wa tembo yaliyo nje ya mbuga ya taifa na tayari wametoa msaada mkubwa katika kusaidia kwenye funganisha ya MEDA.*

Ni muhimu pia kutambua haja ya kuhimili miradi ya jamii kwenye vijiji vya jirani ambavyo pamoja na kwamba vina rasilimali za asili, jamii husika zinaweza zisiwe na rasilimali ya fedha inazohitajika kukuza biashara ya utalii wa mazingira (mfumo wa wanyama) kwenye jamii zao.

Management Strategies

Work collaboratively with all agencies to implement the plan vision and directions. In particular work with:

- Wildlife Department in relationship to hunting both professional and resident in the surrounding areas .
- Tarangire National Park Authorities.
- Dorobo and Partners Village Ecotourism Development which is assisting Terat village in protecting wildebeest calving grounds in Simanjiro.
- Monduli District Council and village councils respectively.
- Tarangire Elephant Project in developing a monitoring and evaluation process.

Malengo

- *Kuungeza usimamizi kwenye eneo la hifadhi kwa kushirikiana na serikali pamoja na mashirika yasiyo ya serikali ili kuhakikisha kwamba yanazingatia kikamilifu thamani za mbuga na za hifadhi kwenye kupaanga na kutekeleza shughuli zinazohusiana na eneo la mipango.*

Mikakati ya Usimamizi

Kushirikiana na mashirika yote kwenye utekelezaji wa Mtazamo na Mielekeo. Yafutatayo ni mashirika / idara za kufanya nao kazi:

- *Idara ya Wanyamapori kuhusiana na uwindaji wa kitaalam na wa wakazi wa maeneo yanayozunguka eneo la hifadhi.*
- *Mamlaka ya Mbuga ya Taifa ya Tarangire .*
- *Maendeleo ya Ekotourism ya Vijiji ya Dorobo na Wabia ambalo linasaidia Kijiji cha Terat kulinda maeneo ya kuzalia kongoni Simanjiro.*
- *Halmashauri ya Wilaya ya Monduli na mamlaka za vijiji.*
- *Mradi wa Kulinda Tembo wa Tarangire kwenye uundaji wa mfumo wa ufuatiliaji na wa tathmini.*

7.3 Administration and organization

The Conservation Area is administered by a Management Steering Committee made up from members of the local communities and private sector partners. The financial management has been in the hands of Boundary Hill Lodge Limited but a formal managing entity with clear financial management mandates needs to be implemented.

7.3.1 Management

There will be a requirement for conservation area management staff with levels of professional competence sufficient to carry out planned management activities under the custodianship of the Steering Committee. This includes managerial, administrative, and technical and support staff as outlined on the following page:

7.3 Utawala na Muundo

Eneo la Hifadhi linasimamiwa na Kamati ya Uendeshaji iliyoundwa na wawakilishi wa kutoka jamii za wenyeji na seka binafsi. Usimamizi wa fedha umekuwa mikononi mwa kampuni ya Boundary Hill Lodge Limited lakini kuna haja ya kuunda chombo maalum chenye mamlaka juu ya usimamizi wa fedha.

7.3.1 Usimamizi

Kutahitajika wafanyakazi wa kusimamia eneo la hifadhi wenyewe viwango vya ujuzi wa kitaalam utakaowazesa kuendesha shughuli za usimamizi zilizopangwa chini ya uongozi wa Kamati ya Uendeshaji. Hii itakuwa pamoja na uongozi, utawala, na ufundu na wasaidizi kama ilivyo hapo chini:

TCA Manager/ <i>Meneja wa TCA:</i>	Responsible for establishing and executing annual work plans based on the management plan, responsible for supervising, monitoring and disciplining TCA staff, responsible for budgetary and associated recurrent expenditure overview. <i>Atakuwa na jukumu la kuunda na kutekeleza mipango ya kazi ya mwaka kufuatana na mpango wa usimamizi, atakuwa na jukumu la kusimamia, kufuatia na kudhibiti nidhamu ya wafanyakazi wa TCA, atakuwa na jukumu juu ya bajeti na matumizi ya kawaida yanayohusiana.</i>
Community Liaison Officer/ <i>Afisa Ushirikiano wa Jamii:</i>	Responsible for ensuring clear lines of communication between the community, the TCA project and other stakeholders. Provides regular feedback both ways providing a solid base for any potential conflict resolution. <i>Atakuwa na jukumu la kusimamia msingi dhabiti wa mawasiliano kati ya jamii, mradi wa TCA na wabia wengine. Atatoa na kurudisha taarifa pande zote ili kujenga msingi mzuri wa kusuhulisha migongano yeoyote ambayo inaweza kutokea.</i>
TCA Accountant/ <i>Mhasibu wa TCA:</i>	Responsible for fiscal accountability, clarity and financial overview. Reports to the LCA Manager. <i>Atakuwa na jukumu juu ya masuala ya fedha, kuweka wazi masuala ya fedha. Ataripoti kwa Meneja wa LCA</i>
TCA Administrative Assistant:	Provides administrative backstopping for the TCA Manager, Community Liaison Officer and accountant. Reports to the TCA Manager
TCA Assistant/Workshop Manager:	Provides a supporting role to the TCA Manager and manages workshop activities. Reports to the TCA Manager. <i>Atamsaidia Meneja wa TCA kwenye masuala ya utawala, Afisa Ushirikiano wa Jamii na Mhasibu. Ataripoti kwa Meneja wa TCA</i>
TCA Workshop Administrator:	Provides administrative backstopping for the TCA Assistant/Workshop manager, potential to manage and provisionally analyze field-monitoring data. Reports to the TCA Assistant/Workshop manager. <i>Atamsaidia Meneja wa TCA na kusimamia shughuli za karakana. Ataripoti kwa Meneja wa TCA</i>
TCA Mechanic:	Provide technical mechanical support to maintain and repair TCA assets. Reports to the TCA Assistant/Workshop manager. <i>Atatoa msaada wa kiufundi ili kutunza na kutengeneza mali ya TCA. Ataripoti kwa Msaidizi wa TCA/Meneja Karakana</i>
Anti-Poaching & Security:	Two village game scouts per gate, by 5 gates. Three village scouts at Radilen and nine village game scouts assigned to field duties. <i>Askari wawili wa kijiji kwa kila lango kuu, kwenye milango mikuu 5. Askari watatu wa vijiji watakuwa Radilen na tisa watapangiwa kwenye shughuli za mbugani.</i>
Driver:	Driver for Management and Administration vehicle. Reports to the TCA Manager. <i>Dereva wa gari la Usimamizi na Utawala. Ataripoti kwa Meneja TCA</i>
Security and housekeeping personnel:	Provide security and domestic support for administration and staff housing units. Report to TCA Manager. <i>Watasaidia kwenye masuala ya usalama na uhudumiaji wa usafi wa majengo ya utawala na nyumba za wafanyakazi. Wataripoti kwa Meneja wa TCA</i>

7.3.2 Financial Administration

Within the Conservation Area, revenue can be generated through four different sources as discussed below. To manage these funds to ensure an equitable distribution amongst the local communities involved in the project and the neighbouring communities whose village lands hold natural values which are integral to the ecosystem, the preferred option is for a Trust Fund (TF) to be established.

The procedure for the formation of the Trust includes as a minimum:

1. Preparation of the Trust Deed.
2. Continuing discussions with Community Leaders and interested stakeholders.
3. Nomination and Signing by the Trustees.
4. Registration of Trust Deed.
5. Draft Constitution based on community expectations and inputs.
6. Communication of the decision to community and other non-signatory stakeholders.
7. Open bank account.
8. Build Trustee Capacity related to responsibilities and participatory decision-making.

The TF represents a cooperative strategy. This type of arrangement recognizes the need of different stakeholders to share risks, different funding limitations, management skill levels, economies of scale for labor and land, tax implications and the desire to gain market access.

- **Conservation area entry and transit fees.** This fund-raising idea simply means charging admission fees to access the resource. An expanded use of the mechanism might include things like trophy fees, and hunting licenses, etc for adjacent lands to the Conservation Area. These are most commonly used in protected area management so as to diversify balance sheets of the managing organization. The proposed entry and transit fees are discussed in Appendix 4. Not only would this provide direct revenue to the TF for operational expenditure such as the maintenance and construction of roads, entrance gates, rangers posts but also the payment of employees of the TCA, equipment purchases such as anti-poaching vehicles and bicycles, and also radio communications. Monduli Council would also be able receive a percentage of this income in the form of levies.
- **Client bed night fees.** Each tourist facility existing in the conservation area has been established through formal agreements with the local communities directly involved with the

7.3.2 Usimamizi wa Fedha

Ndani ya Eneo la Hifadhi, mapato yanaweza kutengezwa kwa kupitia njia nne tofauti zifuatazo. Kusimamia fedha hizi ili kuhakikisha ugawanaji wa haki kati ya jamii za kienyeji zinazohusika na mradi na jamii jirani ambao ardhi yao ina thamani za asili ambazo ni sehemu ya mfumo wa wanyama kuna haja ya kuanzisha Mfuko wa Dhamana (MD).

Utaratibu wa kuunda Mfuko wa Dhamana ni kama ifuatavyo:

1. Utayarishaji wa Hati ya Mfuko.
2. Uendelezaji wa mahojiano na viongozi wa jamii na wadau wanaotaka.
3. Uchaguzi wa / na kusainisha Wadhamini.
4. Usajili wa Hati ya Mfuko.
5. Msadajari bio wa Katiba kufuatana na matege-meo na michango ya jamii.
6. Mawasiliano ya maamuzi kwa jamii na wadau wengine ambao siyo waweka saini.
7. Ufunguzi wa akaunti ya benki.
8. Kujenga uwezo wa wadhamini kwenye masuala yanayohusiana na majukumu na ufanya maamuzi shirikishwaji.

MD inawakilisha mkakati wa ushirikiano. Mpango wa aina hii unatambua haja ya wadau tofauti kugawana hatari, vikwazo vya fedha vinavyotofautiana, viwango vya ustadi wa usimamizi, uzalishaji mkubwa wa kazi na ardhi, masuala yanayohusiana na kodi na tamaa ya kupata masoko.

- *Kiingilio na ada ya kupita kwenye Eneo la Hifadhi. Wazo hili la kuzalisha fedha linamaanisha kutoza ada ya kuingilia kwenye rasili-mali. Matumizi mengine ya utaratibu huu yanaweza kuhusisha vitu kama ada ya nyara, na leseni za uwindaji, n.k. kwa maeneo yaliyo jirani na Eneo la Hifadhi. Vitu hivi hutumika mara nyingi kwenye usimamizi wa eneo linalolindwa kwa madhumuni ya kutofautisha mizania ya shirika simamizi. Ada za kiingilio na za kupita zinazopendekezwa zimeongelewa kwenye Kiambatisho cha 4. Siyo tu kwamba hizi zitatoa mapato ya moja kwa moja kwa MD kwa matumizi ya kawaida kama matengenezo na ujenzi wa barabara, milango mikuu ya kuingilia, vituo vya wahifadhi bali pia zitalipa wafanyakazi wa TCA, zitanunua vifaa kama magari na baisikeli za kufuatilia majangili, na pia mawasiliano ya mitambo ya redio. Halmashauri ya Monduli pia itaweza kupata asilimia ya mapato haya kwa njia ya kodi.*

Ada watakayotozwa wageni watakaolala. Kila huduma ya watalii iliyomo ndani ya

land on which the facility has been developed. As an integral part of the agreement the operator of the tourist facility pays the village a bed night fee based on the number of clients staying at the facility. The current situation is that this revenue is used solely by that particular village for community development projects such as water reticulation, school infrastructure and medical facilities to name a few. Since this would be the main source of revenue within the conservation area (see Appendix 4) it is proposed that all funds are paid to the trust fund with 80% of revenue returning to each respective village for development projects and 20% of these funds channeled into development funds within communities who, although have no physical presence within the conservation area, are an integral part of the overall ecosystems well being and future sustainability.

- **Donors.** Most fundraising strategies also include efforts to generate voluntary contributions from private sector companies, non government organizations such and individual citizens. Although there are avenues for grants from non government organizations for specific projects, private sector companies and individuals, while a useful activity, may not generate as much money in Tanzania as fund-raisers might hope for, since the economic and institutional incentives for such voluntary giving are still weak or non-existent, and a prosperous middle-class with a tradition of charitable giving is small or absent.
- **Others:** Although not fully explored, this may include a variety of sources such as:
 1. **Conservation enterprises.** This includes everything from licensing products and animal logos to sustainable harvesting of forest resources such as honey and butterflies. The difficulties here are mostly associated with obtaining seed capital and finding entrepreneurial initiative to manage such enterprises without constant subsidy from the public sector.
 2. **Concessions.** A typical way to generate funds for protected area management is to organize contracts with private sector firms granting them temporary rights to operate tourist concessions such as camel rides, balloon safaris or mountain bike trips. These operations would utilize the areas existing and planned facilities without requiring any additional development.

It may be difficult for a single organization to afford a person who can explore all the potential fund-raising options on a full-time basis. It may be more useful to support such a person who operates full or part-time over several years.

eneo la hifadhi imeundwa kwa mapatano na jamii za kienyeji zinazohusika moja kwa moja na ardhi ambapo huduma hiyo imejengwa. Ikiwa kama sehemu ya mkataba, mwendesha wa huduma ya watalii analipa kijiji ada ya kitanda kuto-kana na idadi ya wateja wanaolala kwenye huduma hiyo. Hali ilivyo sasa hivi ni kwamba mapato haya yanatumika na kijiji kimoja tu kwa miradi ya maendeleo ya jamii kama usambazaji wa maji, miundo mbinu ya shule na zahanati, kwa kutaja mambo machache. Kwa vile hii ndiyo itakuwa chanzo kikuu cha mapato ndani ya eneo la hifadhi (angalia Kiambatisho cha 4) inashauriwa fedha zote zilipwe kwenye Mfuko wa Dhamana na asilimia 80% ya mapato irudi kwenye kila kijiji kwa madhumuni ya miradi ya maendeleo, na asilimia 20% iliyobaki itaenda kama fedha za maendeleo kwa jamii ambazo, ingawa hazihusiki moja kwa moja ndani ya eneo la hifadhi, kwa namna moja au nyingine ni zinahusika ndani ya mfumo mzima wa utunzaji na uendelezaji wa baadaye wa mfumo wa wanyama.

Wafadhili. Mikakati mingi ya kuchangisha pesa pia huunganisha juhudzi za michango ya hiari kutoka makampuni ya sekta ya binafsi, mashirika yasiyo ya kiserikali na wananchi mmoja mmoja. Ingawa kuna njia za kupata misaada kutoka mashirika yasiyo ya kiserikali kwa miradi maalum, makampuni ya sekta binafsi na watu mmoja mmoja, ingawa ni shughuli ya manufaa, inaweza isizalishie pesa nyingi kama wachangisha pesa wa Tanzania watakavyotarajia, kwa vile motisha / vichocheo nya kiuchumi na nya kishirika kwa michango ya hiari ya aina hii bado ni hafifu au haipo kabisa, na tabaka la kati lililoneemaka na lenye tabia ya kutoa misaada ni dogo au halipo kabisa.

Wengine: Ingawa hawajapelelezwu kikamilifu, hawa wanawenza kuunganisha vyanzo nya aina tofautitofauti kama:

Shughuli za Hifadhi: Hii ni pamoja na kila kitu kutoka utozaji leseni wa bidhaa na nembo za wanyama hadi kwenye uvunaji endelevu wa rasilimali za porini kama asali na vipepeo. Ugumu hapa unahusiana na upatikanaji wa mtaji wa kuanzia na kutafuta ari ya kuanzisha shughuli za kusimamia shughuli za aina hii bila ya ruzuku ya siku zote kutoka sekta ya biashara.

The design of the structure of the TF should factor in the political boundaries involving districts as this will impact negotiations and different stakeholder involvement in sub-committees at the village level. It will also allow for different administrative arrangements for the resources that could be generated in different districts, rights and responsibilities of the different stakeholders, allow for membership rights on specifically focused geographical areas and recognize the different levels of competencies in different parts of the surrounding areas. The steps involved in establishing an Environmental Trust Fund are shown in Appendix 5.

Aims

- To ensure an equitable management system which also involves revenue collection and distribution to community partners, local government and community's in adjacent areas.

Management Strategies

- To establish an Environmental Trust Fund with suitable board members with clear management and financial goals. See Figure 11.

2. *Miliki: Njia nyingine ya kuzalisha pesa kwa usimamizi wa maeneo ya hifadhi ni kuandaa mikataba na makampuni ya sekta binafsi ya kuwapatia haki za muda mfupi kuendesha shughuli za kitalii kama upandaji wa ngamia, safari za maputo makubwa au safari za kupaanda balskeli za milima. Shughuli hizi zinge-weza kufanyika kwenye maeneo yaliyopo na sehemu za huduma zilizopangwa bila ya kuhitaji uendelezaji / ujenzi mwingine.*

Inaweza iwe vigumu kwa shirika moja kumudu kulipa mtu wa kudumu mwenye uwezo wa kutafuta njia za kuchangisha / kupata fedha. Italeta maana zaidi kumhimili mtu wa aina hiyo atakayeshughulika muda wote au kwa muda maalum kwa kipindi cha miaka mingi.

Muundo wa MD ufikirie mipaka ya kisiasa inayounganisha wilaya kwa vile hii itaathiri mahojiano na uhusishaji wa wadau tofauti kwenye kamati ndogo za kiwango cha kijiji. Pia itaruhusu maandalizi ya tawala tofauti kwa rasilimali ambazo zingetoka kwenye wilaya tofauti, haki na majukumu ya wadau tofauti, ruhusu haki za wanachama juu maeneo ya kijiografia yatakayolengwa na kutambua viwango tofauti vya uwezo kwenye maeneo tofauti ya maeneo yanayozunguka. Hatua husika kwenye uundaji wa Mfuko wa Dhamana ya Mazingira zimeonyeshwa kwenye Kiambatisho cha 5.

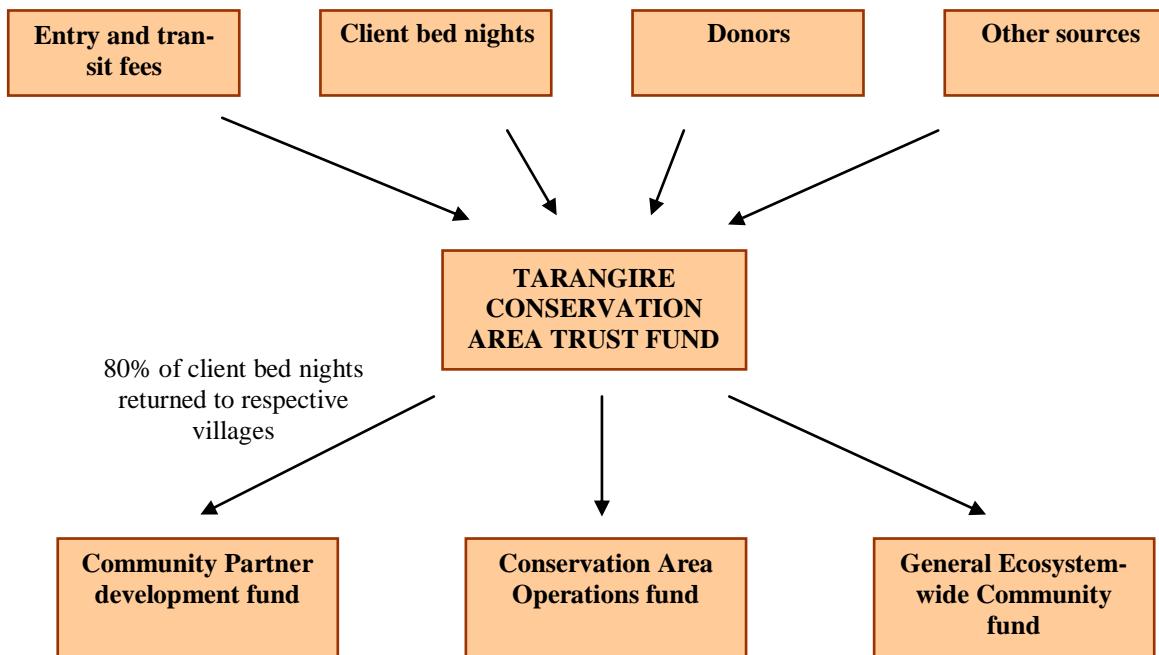
Malengo

- *Kuhakikisha mfumo wa usimamizi wenyewe hak-sawa ambao pia utahusika na ukusanyaji na ugawaji wa mapato kwa wabia wa jamii, serikali mitaa na kwa jamii zilizo kwenye maeneo ya jirani.*

Mikakati ya Usimamizi

- *Kuunda Mfuko wa Dhamana ya Mazingira utaka-okuwa na wanachama wa bodi watakaofaa na wenyewe malengo kamilifu ya usimamizi na masuala ya fedha. Angalia Kielelezo cha 11*

Figure 13: Potential Financial structure
Kielelezo cha 11: Muundo wa Usimamizi wa Fedha utakaowezekana



Appendix 1: Signage

The development of a uniform design and build criteria for all signage is particularly relevant. Signage should, while remaining subtle and unimposing, have a repeated theme that marks an association with the Conservation Area. Additionally signage should be of a sufficient build quality that it does not rapidly degrade or be overly susceptible to vandalism.

Signage should not be limited to directions and distances but should also show interpretative information such as type of activities permitted, habitat, flora and fauna to be encountered and major features.

i: Construction

The signage to be used will be of stone cairns, of similar design to boundary markers with embedded information plaques. Each plaque will be made of *colour bond* steel sheeting, non reflective and of a uniform size. The colour combination should be aesthetically as well as environmentally pleasing.

The cairns should have a base of 140 cm square and skewed pyramid in shape to a height of approximately 150 cm. The face with the embedded sign should be at no less than 75 degrees from the horizontal.

The plaque should be fixed by either rivets or bolts to four metal anchors of no less than 10 cm in length cemented into the cairn. Plaques should be approximately A1 in size.

The area surrounding the sign to a radius of 2.5 meters should be kept clear of long grass and other obstructions.

ii: Types of Signage

Category A: Boundary markers and boundary signs.

Boundary cairns of no less than 150 cm in height should be placed no less than 250 meters apart or closer in areas where the physical environment dictates. One in every four boundary markers should also be embedded with signage identifying the area as well as notifying of access and non-permitted



Category B: Access Signage.

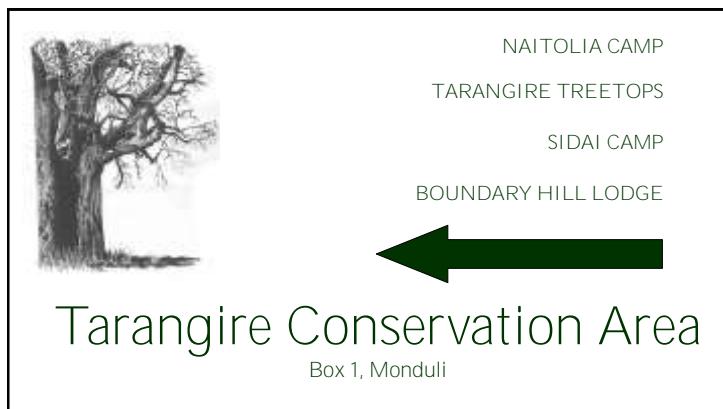
Access signs should be placed at major junction points between LCA roads, district roads and any other point of access into the Conservation Area. These signs should designate the directions to the lodges and camps within the Conservation area and in some cases also the distances to each facility.

Of particular importance is the placement of signage at these points:

Junction with the Great Uhuru Road and the Makuyuni-Naitolia road showing directions and distances.

Junction with the Naitolia School road showing directions.
Access road at the Boundary Hill rangers post showing distances.
At the entrance gate and information centre between Silalu Hill and Radilen Kopje showing.
At the junction between the Naitolia camp road and the through road to Tarangire Treetops and Boundary Hill showing directions.
At the junction between the Tarangire Treetops road and the through road to Boundary Hill showing directions.

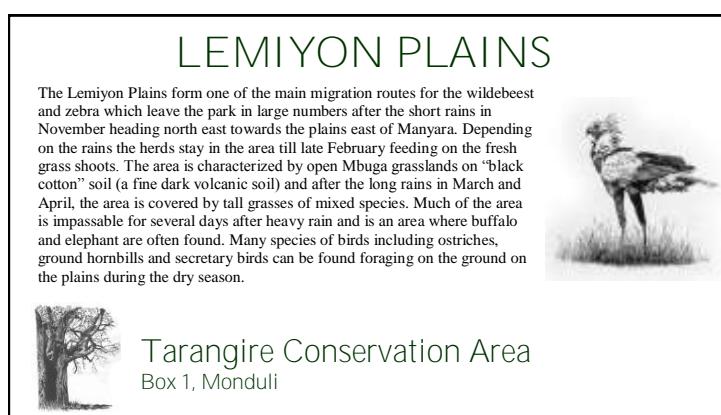
Other access signs maybe appropriate once all the roads and zones have been finalized.



Category C: Informative signage.

Information signage should be used in areas of particular significance detailing the type of habitat and common wildlife found in the area. These signs are of particular benefit to visitors and are important in establishing an identity with the environment. In particular the areas which should be covered are as follows:

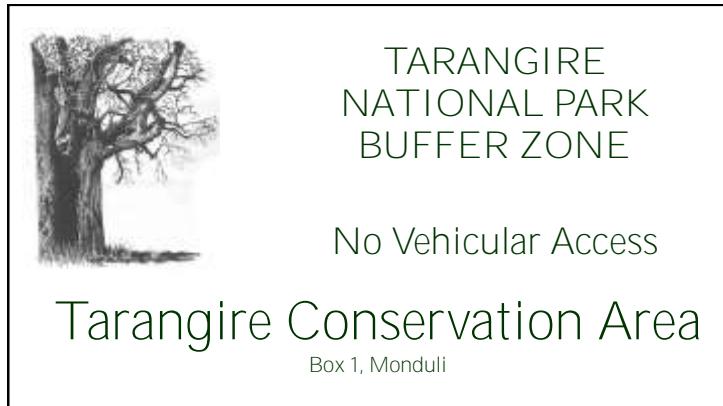
- The Lemiyon Plains feature, an area of Nbuga grasslands of mixed species and heights which is also a seasonal floodplain.
- The Naitolia floodplains, an area of grasslands with medium height grasses, some herbs and many flowering plants after the short rains. This area is also characterized on the border margins by bush land of short acacia trees dotted with baobab and larger acacia species.
- The Sand River area which is classically Riverine forest and an important watering hole for elephants during the dry seasons.
- The Gosuwa swamp area, an important permanent swamp area with sedges and grasses as well as Nbuga grasslands to the east.
- The Boundary Hill area, the highest feature in the ecosystem with a number of sand rivers feeding the Tarangire River and Gosuwa Swamp from the Boundary Hill ridgeline.



Category D: Planning zones signage.

The Management Plan designated zones for particular activities, where appropriate some of these zones should be designated and appropriate signage placed as follows:

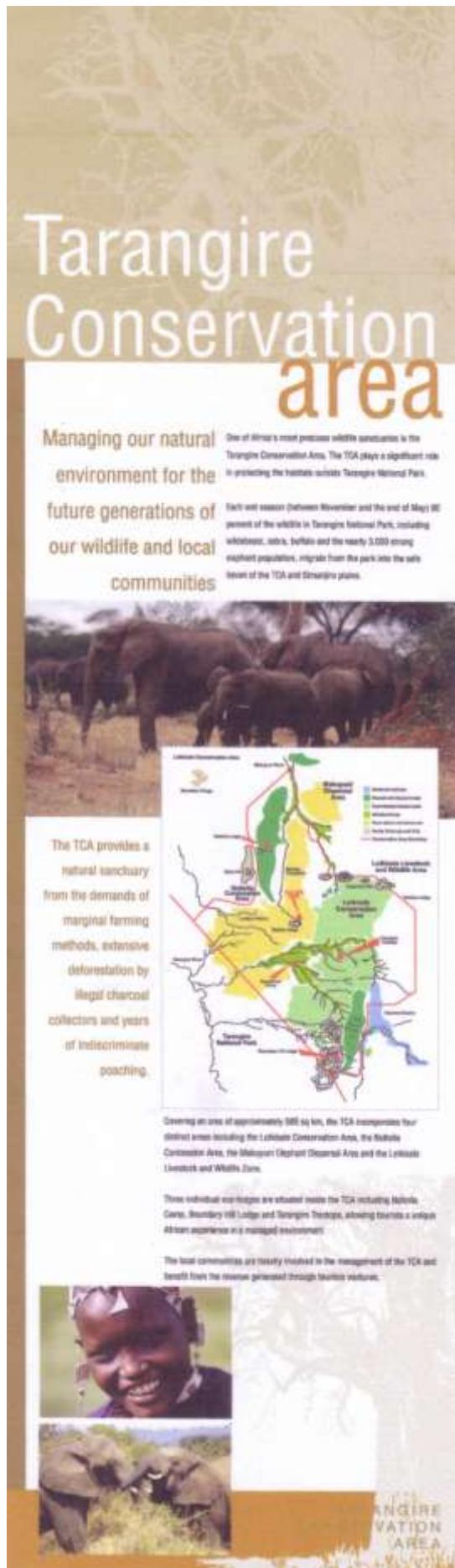
Tarangire National Park Buffer Zone, between the National Park and the Conservation Area.
Gosuwa Swamp Wilderness Zone, Walking and fly camping with limited vehicle access.



Budget (USD)

Stone Cairn construction:	Labour	\$20 per marker
	Cement	\$3.50 per marker
	Stones (collection)	\$5.50 per marker
	Transportation	\$46.50 per marker
Colour bond plaque:		\$145 per plaque
Sub – total:		\$220.00 per sign
Contingencies 7.5%:		\$16.50 per sign
Total:		\$236.50 per sign

Type of Signage		Quantity	Total Budget:
Category A	Boundary signs	54	\$12,771
Category B	Access Signs	6	\$1,419
Category C	Informative Signs	5	\$1,182
Category D	Planning Zones	10	\$2,360
Total budget			\$17,732



Appendix 2: Visitors centre display

Appendix 3: Tarangire Conservation Area Reptile Checklist

Common Name	Scientific Name	Status	Notes
CHELONIANS			
Turtles, tortoise and terrapins			
Leopard Tortoise	<i>geochelone pardalis</i>	widespread	
Spekes Hinged Tortoise	<i>kinixys spekii</i>	widespread	
Pancake Tortoise	<i>malacochersus tornieri</i>	CITES Appendix II	Seriously under threat in Tanzania with only Tarangire and Ruaha within conservation areas.
Helmeted Terrapin	<i>pelomedusa subrufa</i>	widespread	
Pan Hinged Terrapin	<i>pelusios subniger</i>	widespread	Little known about in Tanzania; few records; only found in Tarangire in northern TZ.
LIZARDS			
Somali-Masai Clawed Gecko	<i>holodactylus africanus</i>	limited distribution	
Brook's Gecko	<i>hemidactylus brooki</i>	widespread	
Tropical House Gecko	<i>hemidactylus mabouia</i>	widespread	
Tree Gecko	<i>hemidactylus platycephalus</i>	widespread	Only found in Tarangire in northern Tanzania.
Nyika Gecko	<i>hemidactylus squamulatus</i>		Kenya and Tanzania only
Grimmek's Dwarf Gecko	<i>lygodactylus grimeeki</i>	little known	Only found near Tarangire at Manyara
Cape Dwarf Gecko	<i>lygodactylus capensis</i>	widespread	
Tuberculate Thick-toed Gecko	<i>pachydactylus tuberculatus</i>	widespread	
Short Necked Skink	<i>mabuya brevirostris</i>	widespread	Sporadic in northern Tanzania, only recorded in Tarangire, Serengeti, Bulyanhulu.
Tree Skink	<i>mabuya planifrons</i>	widespread	
Striped Skink	<i>mabuya striata</i>	widespread	
Variable Skink	<i>mabuya varia</i>	widespread	
Peter's Writting Skink	<i>lygosoma afrum</i>	widespread	
Sundevall's Writting Skink	<i>lygosoma skink</i>	widespread	
Blue-tailed Snake-eyed Skink	<i>panaspis megalurus</i>	little known	Tanzanian endemic only found north of Dodoma on the central plains
Wahlberg's Snake-eyed Skink	<i>panaspis wahlbergii</i>	widespread	
Boulenger's Scrub Lizard	<i>nucras boulengeri</i>	widespread	
Speke's Sand Lizard	<i>helobolus spekii</i>	widespread	
Southern Long-tailed Lizard	<i>latastia longicaudata</i>	widespread	
Yellow-throated Plated Lizard	<i>geckhosaurus flavigularis</i>	widespread	

Common Name	Scientific Name	Status	Notes
Lizards (continued)			
Great Plated Lizard	<i>geckhosaurus major</i>	widespread	
Black-lined Plated Lizard	<i>geckhosaurus nigrolineatus</i>	widespread	
Red-headed Rock Agama	<i>agama agama</i>	widespread	
Tropical Spiny Agama	<i>agama armata</i>	widespread	
Flap-necked Chameleon	<i>chamaeleo dilepis</i>	widespread	
Kenya Pygmy Chameleon	<i>rhampholeon kerstenii</i>		Recorded in Tarangire and Mkomazi.
White-throated Savanna Monitor	<i>varanus albigularis</i>	widespread	
Nile Monitor	<i>varanus niloticus</i>	widespread	
Snakes			
Lineolate Blind Snake	<i>typhlops lineolatus</i>	widespread	
Peter's worm Snake	<i>leptotyphlops scutifrons</i>	widespread	
Southern African Rock Python	<i>python natalensis</i>	Cites Appendix II	
Central African Rock Python	<i>python sebae</i>	Cites Appendix II	
Kenya Sand Boa	<i>eryx colubrinus</i>	Cites Appendix II	Sporadic in northern TZ, but found at Tarangire.
Brown House Snake	<i>lamprophis fuliginosus</i>	widespread	
Cape Wolf Snake	<i>lycophidion capense</i>	widespread	
Flat-snouted Wolf Snake	<i>lycophidion depressirostre</i>	widespread	
Semi-ornate Snake	<i>meizodon semiornatus</i>	widespread	
East African Shovel Snout	<i>prosymna stuhlmanni</i>	widespread	
Spotted Bush snake	<i>philothamnus semivariiegatus</i>	uncommon	
Tiger Snake	<i>telescopus semiaannulatus</i>	widespread	
White Lipped Snake	<i>crotaphopeltis hotamboeia</i>	widespread	
Boomslang	<i>dispholidus typus</i>	widespread	
Rufous Beaked Snake	<i>rhamphiophis rostratus</i>	widespread	

Common Name	Scientific Name	Status	Notes
Snakes (continued)			
Dwarf Sand Snake	<i>psammophis angolensis</i>	widespread	
Olive Sand Snake	<i>psammophis mossambicus</i>	widespread	
Northern Stripe-bellied Sand Snake	<i>psammophis sudanensis</i>	widespread	
Common Egg-eater	<i>dasyptis scabra</i>	widespread	
Desert Black-Headed Snake	<i>micrelaps boettgeri</i>	scattered	poorly known
Bibron's Burrowing Asp	<i>attractaspis bibroni</i>	widespread	
Egyptian cobra	<i>Naja haje</i>	scattered	
Black-necked spitting cobra	<i>naja nigricollis</i>	widespread	
Black Mamba	<i>dendroaspis polylepis</i>	widespread	
Puff Adder	<i>bitis arietans</i>	widespread	

Appendix 4: Proposed Entrance and transit fees

Schedule 1:

Fees for clients and vehicles staying at the tourist lodges or camps within the Tarangire Conservation Area.

Vehicles up to 1 tonne:

Fee per vehicle for 48 hour stay:	\$20 USD
Multiple entry	

Vehicles over 1 tonne belonging to tourist lodges or camps within the Tarangire Conservation Area

No fees apply

Schedule 2:

Fees for clients and vehicles only visiting or in transit through the Tarangire Conservation Area.

Non-resident clients:	\$10 USD per day, single entry.
Residents:	5,000 TSH per day, single entry.
TZ citizens	1,000 TSH per day, single entry.
School children	no fee

Vehicles up to 1 tonne:

Fee per vehicle:	10,000 TSH per day, single entry.
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Vehicles over 1 tonne:

Fee per vehicle:	50,000 TSH per day, single entry.
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Appendix 5: Minimum Anticipated Revenue for Tarangire Conservation Area, first year.

Client Night fees	Bed night fees	Total available Beds	Annual fees
Boundary Hill Lodge			
Tarangire Treetops			
Based on 20% occupancy	\$15 per night	60	\$65,700 USD
 Naitolia, MEDA, Mswakini, Sand River, LLWZ Camps.			
Based on 15% occupancy	\$20 per night	100	\$109,500 USD
 Total			\$175,200 USD
Village development: 80%	\$140,160		
Trust Fund: 20%	\$35,040		
 Client Vehicle Entry fees			
Average 2.3 clients per vehicle and average 1.6 night stay.	\$20	1,190 vehicles	\$23,800 USD
 Vehicle transit fees			
Average 2 vehicles per day			\$6,403 USD
 Client transit fees			
Average 1.5 clients per day			\$5,475 USD
 Sub-Total			\$35,678 USD
Total (Trust fund)	\$70,718 USD		

NOTES:

- 1) This is based on all tourist facilities being completed and is initial year only.
- 2) For Tarangire Treetops and Boundary Hill Lodge a conservative approach has been taken with regards to occupancy rates.
- 3) Transit fees are estimated on the low side, as it is anticipated that these fees act as a deterrent to casual visitors, and not as a revenue stream.
- 4) No other revenue source such as concession fees or donors have been included.

Appendix 6: Typical steps in the creation of a Environment Trust fund.

1. Define general vision – who and what the trust fund will support, and why. This is usually done in a consultative process in which the proponents of the fund convene a series of meetings with potential stakeholders and stakeholder groups.
2. Organize a steering committee - It needs to include both “workers” – people who have the expertise and time to work out the detailed design, and people with clout, who can secure the necessary high-level agreements and meetings (government ministries, international donors, etc.). The committee should also be representative of stakeholders.
3. Develop a list of potential donors and begin meetings – they should be approached by government, together with influential members of steering committee.
4. Secure financial support for planning/development phase – usually this is at least \$100,000 not counting the time of people on the steering committee. Expenses generally include consultant and legal fees, meeting expenses, and travel for fundraising and other purposes.

Develop a more specific vision and strategy – this should be done by the steering committee in an open process that stakeholders can participate in.

Questions to address:

- Role of the trust fund in the national context – relation to national plans and strategies, government, private sector, etc.
- Legal structure of the fund (trust, foundation, etc.).
- Governance (structure and composition of governing body).
- Focus of grant making program – purpose, objectives, who is eligible to receive grants, criteria for selecting them. Obviously this will change and develop over time but a well-developed starting point is essential.
- Financial projections – how much money will the fund need? What percentage will be endowment, what percentage long-term sinking or replenishing funds? This should be commensurate with the objectives of the grant making program – enough to achieve a reasonable percentage of the objectives. If that calculation runs into an impossible figure, narrow the objectives.

6. After thorough discussion of the above points, draft conclusions into a proposal for the establishment of the fund. Consultations with donors should have been ongoing through the process. The committee is now ready to present the proposal to them. This may involve meetings with in-country officials as well as at the donor’s own national or international headquarters.

7. AFTER there is reasonable expectation of a donation (it’s in process with the donor) hire a lawyer to draft papers of incorporation and statutes or by-laws. These will define the processes for electing the governing body.

8. Incorporate the fund and elect the governing body (which should include mostly people who have served on the steering committee).

9. Receive initial funding, hire staff, open office, initiate grant program. If there is a delay between steps 8 and 9, and if there is sufficient start-up money, this period can be spent developing the board, preparing the operating manuals, drafting the terms of the first call for proposals, developing application forms, etc. Public meetings for interested parties and potential recipients explaining what the fund is all about should also be on-going during this period.

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