

Eviction Of Maasai Indigenous People From Their Traditional Lands In Ngorongoro

By Viola Hunsicker (pseudonym), October 27 2020 .. [Revisions](#)

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PREFACE

The Maasai people are a remarkable pastoral people who have, for hundreds of years, lived with their cattle on the rangeland, co-existing and interacting with wildlife.

Because of their expertise in management and conservation of resources for wildlife and livestock, the Maasai ecosystem is home to spectacular assemblages of African wildlife populations.

This is in contrast to most of the rest of the world where the average size of wildlife populations has plummeted more than two-thirds in less than 50 years, according to the WWF (World Wildlife Fund).

"Traditional indigenous territories encompass around 22 per cent of the world's land surface and they coincide with areas that hold 80 per cent of the planet's biodiversity. There is increasing recognition that the ancestral lands of indigenous peoples contain the most intact ecosystems and provide the most effective and sustainable form of conservation." From Vicky Tauli-Corpuz, the United Nations Special Rapporteur on the Rights of Indigenous Peoples in her Statement to the UN General Assembly.

In the Ngorongoro Conservation Area, which Maasai call their ancestral home, Maasai ecological strategies and practices are being dismantled by external pressures, such as neo-colonial racist policies restricting the use of their land, loss of land through encroachment by farmers surrounding the area, and land grabs by foreigners.

As years passed,

- a) They have lost crucial dry season pastures in the Oldupai Gorge, Laetoli, Ngorongoro Crater and the Northern Highlands Forest Reserve;
- b) There are severe restrictions on grass burning to control ticks and unwanted grass species;
- c) Cultivation has been banned, in spite of the demands and wishes of NCA pastoralists that cultivation be legally permitted in order to ensure food security for them, with studies showing that limited cultivation in the NCA has not had adverse impacts on the natural environment nor on wildlife.

The NCA residents saw these restrictions as attempts to force them out of their home, i.e. to make their life so difficult that they would have no other choice but to leave the area.⁸⁸

The area was designated as a wildlife reserve by the British colonial administrators when it became a national park. However it is part of Tanzania's MaasaiLand and the Maasai have lived in this area for centuries. The area became a multiple land use area in which Maasai had rights to the land and its resources in exchange for surrendering the Serengeti. However, the administrative powers that were vested in the Board of Trustees of the national parks were exercised in such a manner which encroached on the land and resource rights of the pastoral communities. The alienation of pastoral lands has generally been a result of the misconceptions about the Maasai modes of pastoral land and resource use.⁸⁸

Even so, the Maasai community has continued to maintain significant practices for the conservation of Tanzania's wildlife ecosystems and livestock. A paper by Kokel Melubo -- (2020) *Why are wildlife on the Maasai Doorsteps? Insights from the Maasai of Tanzania* -- goes into detail explaining how close the Maasai are to the environment, much closer than any western expert conservationist would be.

The parts of Maasailand (in Tanzania and Kenya) -- which are still left with wildlife -- have been populated by Maasai for centuries. Traditionally, Maasai children started learning about the ecosystem when they were old enough to herd livestock, starting with small sheep or goats, and working up to calves, then cows as they got older. The Maasai knew all the plants and types of soil and all of the aspects of the environment needed to maintain a healthy environment for livestock and wild animals.

Modern education is starting to change this, but as long as Maasai have cattle (Maasai describe themselves as 'people of cattle' -- *Itungana loo ngishu*), the old knowledge of raising cattle and maintaining the environment sustainably -- without disturbing the wildlife -- will stay in place.

Hatuna mpango wa kuhama maana sisi ndio walinzi wa wanyamapori.

We have no plans to relocate because we are the custodians of wildlife. (survey participant NLA)

[Note: scattered throughout this document you will find the voices of the Maasai who participated in numerous surveys and forums and who hereby tell us about their rights in

Ngorongoro; their closeness with wildlife and the environment; and their poor treatment as indigenous people of the area. (Some voices are in Maa - Maasai language -, some are in Swahili, and some are in English - Maa will be designated as [Maa]).

Before they were pressured to move from the Serengeti to settle in the more confining Ngorongoro highlands, they moved during the change in seasons, seeking better resources when water and pasture dried up. In the rainy season they lived in the lowland plains between Ngorongoro crater and the Serengeti plateau, and in the dry season they sought grazing land in the highlands or near the sources of streams.¹ The vegetation is complex consisting of montane forest and grasslands in the highlands to semi-arid woodlands and grasslands in the escarpment and in the plains. It is this physico-ecological diversity which produces both spatial and temporal grazing, water and mineral resources that result in the extensive migration of both wild and domestic animals that underpins pastoral production (Lane, 1994).⁸⁸

Other essential Maasai practices include:

1. controlled grass burning to kill ticks and tsetse fly, and to control bush encroachment from non-native plant species such as *Datura stramonium*, *Bidens schimperi* and *Gutierrezia cordifolia*. See [Burning Rangelands](#)
2. having protocols that set aside drought reserves and
3. avoiding the wildebeest calving season to avoid disease.²

The pastoralists also move constantly to avoid large herds of wildebeest which carry a viral disease, Malignant Catarrh Fever (MCF), which is fatal to cattle. The Maasai have done this without substantial change for over two centuries, while pastoralism has been practised in the area for at least seven millenia. Ngorongoro has, therefore, been an area where people coexisted with wildlife for thousands of years, accommodating both long before it was classified as a multiple land use area.⁸⁸

"We conserve nature because we live in it, because it is our life, it is the life of our cattle. The conservation people [referring to NCAA] do it because it gives them employment, because they get money from the white men [tourists]. For them, if the white man does not bring money, it is the end of the story. For us, even if the white man does not bring money we will still preserve the environment. We did it before the white men came. We do because it is our lives, it is the life of our ancestors and our unborn children." ⁶² (elder man - Case Study 4 Tanzania).

The Maasai also practiced subsistence cultivation for nutrition when times were difficult.

Decades before Homewood and Rogers wrote [Maasai Ecology](#) in 1991, which showed no wildlife-pastoralist conflict, the management of the Ngorongoro Conservation Area believed there was a conflict between wildlife values and pastoralist activities.

In 1980 the NCA authorities sought to expel the pastoralists, but objective documentation of environmental degradation wasn't available to prove that an eviction was necessary.

It is ironic that, at the same time as the proposed eviction, UNESCO acknowledged the importance of both wildlife and Maasai, and their interaction, and declared Ngorongoro Conservation Area a World Heritage Site and a Man and Biosphere Reserve.⁸²

Kutenganisha wanyama na binadamu itaondolea ngorongoro hadhi ya kimataifa.
Separating animals from humans will deprive Ngorongoro from international status.
...(Survey participant #NNA)

In 1990, the issue of Maasai occupance was still undecided. The studies of Homewood and Rogers (2004) showed that the Maasai added to the values of Ngorongoro, rather than detracting from them.⁸²

Ngorongoro symbolises a growing pattern of land use conflict between indigenous and capitalists all over the world. Questions about the nature of development, the tradeoff between productivity (maximum resource extraction) and sustainability (subsistence), and the future of traditional ways of life, all occur in other places.⁸²

Yannick Ndoinyo - Tanzania (Twitter video)

The biggest source of injustice of indigenous people in local communities right now, is coming from conservation authorities in the protected lands.

These lands are the original lands for indigenous communities.

So they [protected areas] have been established in a way that it perpetuates the colonial mentality and attitude and the people have been pushed away from their lands, and then parks are created.

The way these parks have been created has caused enmity mostly between the local communities - indigenous communities - and wildlife authorities and wildlife itself.

Unless this indigenous knowledge is recognized and is taught as a way of managing the ecosystems, parks, natural landscapes, you can be sure that conservation will continue to face challenges which will continue to be social threats and continue to be a source of violation of rights for the indiginious people

We feel that we must, this time, decolonize conservation in general to allow people to

be involved; to allow people to feel and to have that ownership again.⁸⁴

Because of the nature and character of the NCAA and the manner in which it has exercised its powers, conflicts have intensified with the resident pastoralists. The neglect by the NCAA of its responsibilities to the Maasai pastoral economy; its increasingly restrictive measures against grazing and cultivation; its repressive and punitive measures against the local population; and its increasingly evident failure to stem the tide of poaching from within its ranks; and environmental degradation caused by land and resource uses which affect both wildlife and pastoralist interests -- such as the effect of big hotels and rampant tourism on the NCA ecosystem -- all show that the NCAA has failed to fulfill its dual mandate of conservation and pastoral development.

Since the 1900's the sustainability of the Maasai in the savanna has been questioned. Although non-pastoral people thought that keeping cattle was a 'crazy' livelihood, the possible availability of the monumental numbers of wildlife and open land in Maasailand may have been the real motivation for opportunists to falsely question their sustainability.

The NCA authorities often failed in good conservation practices. Rhinoceros, which were found in the hundreds in the 1950s, numbered only fifteen in 2010, mostly due to poaching. Today there are only 26 black rhinos. There is evidence that the [poaching](#) was an inside job, covered up by the NCA authorities.⁸⁸

Where are all the rhinos we used to have around? They have disappeared. Your Black government keeps telling us that they are the ones who know how to conserve. They have dismissed our traditional systems. I can only say the day will come when all of us will be forced out and nothing of the remaining rhinos will be left, not even their bones for one to see. ...
(Prominent elder)

Tourism has exploded. Earnings from foreigners are on the rise annually, and Tanzania is one of the most popular destinations in Africa. Unfortunately, the situation of the Indigenous pastoralists and hunter-gatherers has not improved and is, in fact, quickly deteriorating. Violations of their human rights are numerous and common.⁸⁷

This is not the first time the NCAA wanted to evict the Maasai from the NCA. In 2006, the Tanzanian government gave an ultimatum to Maasai communities living inside Ngorongoro, around 60,000 people at that time, to vacate the area by end of the year.⁷⁹

Conservationists and NCA authorities claim that wildlife habitat and Maasai and pastoralist development in Ngorongoro Conservation Area are changing, threatening the "[Outstanding Universal Value](#)" promoted by UNESCO. However, there has been more continuity than change. NCA continues as a relatively successful multiple land use area. Habitat changes are minimal; wildlife numbers

fluctuate with no overall decline, in sharp contrast to the Maasai Mara in Kenya, where most medium and large mammal species populations have declined by over 50%.⁸⁵

Today, the Maasai and fellow pastoralists occupy less than two thirds of their former territory and there are indications that this will go on dwindling. Wildlife conservation policies, characterised by the creation of exclusive wildlife protected areas, and state-sponsored agriculture - both large and small scale - and commercial ranching have been responsible for this plight of the pastoral peoples in dryland ecosystems of East Africa.⁸⁸

Ironically, the NCA is also said to be becoming less and less suitable as a livestock and wildlife habitat, primarily because of the measures originally taken to preserve it. Like national parks, the NCA was founded on the premise that nature would be allowed to take its own course, albeit with minimal human intervention in the form of pastoralism.

On the contrary, like national parks, the NCA was established on derived grasslands, which had been partly maintained as grasslands by use of fire as a range control tool. In the absence of fire, the land is reverting to the woody vegetation, and the grasslands are being overrun by the Ormokutian grass (*Eleusine jaegeri*) which are unpalatable and are not eaten by both cattle and wildlife. In their important study of the Maasailand ecology, Homewood and Rodgers reported: 'The non-burning policy of the last twenty years has led to unpalatable, undergrazed *Eleusine* spreading at the expense of heavily grazed intervening turf species'.⁸⁸

Since controlled hunting is prohibited both in the NCA and Serengeti National Park, there is an explosion of buffalo and wildebeest populations, thus increasing risks of such diseases as Malignant Catarrh Fever (MCF) (*ingatee* in Maasai) which are fatal to cattle. Ticks have also increased, thus considerably limiting the use of highland and forest pastures and posing a big threat to both cattle and wildlife.⁸⁸

The multiple land use concept -- as understood and practised by the NCAA -- is founded upon the denial of native rights to the resources therein, the denial of the time-tested rationality of their land and resource use patterns and the denial of their 'organic' knowledge of the NCA environment and its resources.⁸⁸

The environment of the Serengeti + Ngorongoro area is largely man-made: over thousands of years it has been moulded by the interaction between pastoralists, domestic stock and the wildlife. Extensive herding of domestic stock, grass fires and the grazing of wild ungulates have together created the vast grassland regimes which today hold some of the world's greatest concentrations of wildlife. There is little in national parks and nature reserves which is 'intact' and 'natural', in the sense of absence of human influences in these areas. There are national parks and nature reserves precisely because a very important component of those ecosystems - the pastoral communities - were forcibly expelled from those areas.

Pastoralism and pastoral land and resource use is completely compatible with wildlife conservation both in principle and in practice. It is this compatibility which explains the presence of wildlife in pastoral lands of East Africa. There is no scientific basis for continuing to keep pastoral land and resource use out of wildlife protected areas such as national parks and, in particular, in some parts of the NCA which are crucial to livestock. The argument that Maasai cattle might destroy some of the most important natural resources and historical sites in the NCA is baseless as it is refuted by history itself: They have not destroyed these natural resources and historical sites in the hundreds of years before the first conservationist saw the area and they cannot do so now.⁸⁸

Mbona hamsemi wanyamapori wameongezeka.

Why don't they say wildlife has increased? ...(Survey participant #MPN1)

Eviction

In April 2019, eviction was recommended in a document authored by Ladislaus Fredrick Batinoluho; it was titled *Examining The Journey Travelled By Ngorongoro Conservation Area For 60 Years: A Conservation Perspective For Decision Makers*. We will refer to this document as the 'Batinoluho document'. The document was a precursor to the following (MLUM) document, and contained much of the same material.

in August 2019 a document entitled *The Multiple Land Use Model Of Ngorongoro Conservation Area: Achievements And Lessons Learnt, Challenges And Options For The Future*, was made public and put forth a plan to move the Maasai residents of the Ngorongoro Conservation Area to a place only 15% of their current territory, with fewer resources, not suitable to livestock, fewer schools, poor soils for cultivation, salty water and low water supply, fewer health clinics, more conflict with neighbors already living there, threatened by land grabs, and a much less friendly environment than their current location. For future reference, we will refer to this document as 'MLUM'.

Tupo tayari kuhama ila mpango uwe mzuri kuliko ule wa jema mfano tulipewa 15x30m kwa ajili ya Makazi na 65 x 30m kwa ajili ya Mashamba lakini wenyeji walitunyanganya maeneo yote ya Mashamba.

We were ready to move to Jema, but the plan should be better -- for example we were to be given 15x30m for Housing and 65 x 30m for farms but the locals would have robbed us of all the areas/or the farms that we have would have been given. ...(Survey participant #RGO1)

Yet another document, published in October 2019, had the same title as the August 2019 document. It was described as the "Final Report". We will refer to this document as "MLUM Oct 2019". This "final" report failed to make it clear where various villages will be moved to.

Additional documents were revealed as time went on:

1. March 2019: A report from the World Heritage Committee: *Joint WHC-ICOMOS-IUCN Mission to Ngorongoro Conservation Area*. Purpose: "review progress in balancing conservation, livelihood and development needs in NCA." This report suggested "encouraging voluntary resettlement of Maasai outside the property", and "resolving such matters in a harmonious way".
2. Several spreadsheets and documents showing various big undeveloped farms available for the Maasai resettlement : Lake Region, Northern Region, Iringa, Kusuni, Mbeya, Njombe, and Rukwa. Many were available because of failure to pay taxes. While pastoralist purposes are allowed, conflicts with neighbors who are agriculturists would be a strong possibility.

3. [Upgrading Village and NPC Restructuring Report](#) (2020)
 - a. Proposed Settlements For Upgrading To Village Status
 - b. Proposed Structure Of NPC
 - c. Resettlement Strategy

We will refer to the Ngorongoro Conservation Area as the NCA. The NCA Authority will be referenced as the NCAA.

Population

The MLUM mentions population 50 times, and the Batinoluho document mentions population 30 times. Other words and phrases commonly used are 'sustainability' and 'carrying capacity.'

The UNESCO World Heritage Center also plays a part in this story. UNESCO is also keenly concerned about 'sustainability' and high 'population growth', possibly leading to the pushing the Maasai out of the NCA. Development (buildings) is discouraged and subject to approval, impacting much-needed building of new schools and classrooms, which are needed to slow population growth.

While the NCA authorities continue to worry about the perceived impact of overpopulation of the residents, the tourist impact is highly visible.



Vehicle congestion in Ngorongoro Crater.

They are trying to say human population causes problems for wildlife existence while they encourage tourists in big numbers, ignoring the fact that tourist activities include car congestion which has a great impact on the environment. ... (Maasai participant "O")

Je watu wakipungua tutapata hatimiliki ya ardhi

If the population declines we will get land title. ...(Survey participant 'MSN1')

Assuming an average growth rate of 3.5%* per year is taken, human population would have grown from 8,000 people in 1959 to an estimated 63,025 in 2020 but in actual sense it will reach 103,262, which may mean that about **40,237, which representing about 40% of the total population was accounted for by immigration.** Immigrants to NCA in this context refers to families, which were not present and those which were not resettled in NCA from Moru area in Serengeti National Park when the Conservation Area was established in 1959 and their descendants. ...[UPGRADING VILLAGES AND NPC RESTRUCTURING REPORT](#) [Link to the report](#)

*Homewood and Rodgers in 1991 estimated the average annual growth rate in pastoral communities to be 2.3% - 2.5%.

Apparently the NCA population growth is not all due to natural increase, but 40% due to immigration. Later in this document, you will see that another 15% of NCA population is due to non-traditional non-pastoral people (NCA employees and their families, teachers, tourist resort entrepreneurs and employees, religious workers) - all living in the NCA.

More on Population [later](#)

Inaccurate Information

To make matters worse, there is a tendency for the MLUM and also some news media to “play the sympathy card” by exaggerating the plight of the Maasai. The intent of the MLUM/NCAA seems to be to convince people that the Maasai are not sustainable and therefore beyond carrying capacity, which will give the NCAA the excuse to move the “poor Maasai who are unable to take care of themselves” -- somewhere else, nevermind that where they want to move them is worse than their current location.

News media, reading the MLUM, might publish false information. Examples:

1. “Among 10,000 villagers, only 200 have cattle”;
2. “[NCAA/NPC] leaders sold it [maize] at exorbitant prices”,
3. “illiteracy has increased” (In fact the number of educated people is increasing).

When the media publishes false information, they lose credibility. Worse yet, it makes the Massai look unsustainable.

Because the Maasai are resilient, this exaggeration does them a disservice by giving credence to the lie that the Maasai are not sustainable.

Maasai Gospel Of Liberation

In the wide plains of Maasailand
The steppe of our forefathers, the motherland
We say *Intasho*, be steadfast
Be loyal to a cause
Stand firm and be loyal to your last
Intasho -- stand up for what you believe in
Speak out for what you have faith in
Believe in the proverbial resilience
Of our forebearers, the legend of *Naiteru Kop*
The ones who shunned complacency
Brought us up from the annals of *Endikirr e Kerio*
And set us up in the beautiful plains
Where we have no shortage of rains
For our ranges to grow
And our herds to glow
Those who stood firm against the sun
As from January during the unforgiving *Olodalu*
Down to the end of *Oloitushul Indapan*
When the lower teeth of our children were removed
And young maidens pierced their ears
For they healed first, hence no fears
Just before the period of *Olosir Kop*
When the short rains came in bits
Showers of unpredictability
They taught us to stand firm during *Pushuka*
When the hot dry winds raged on
And the sweltering sun burned so
Entasho
For it is all for a while
Our star will definitely rise
Again and again, during *Oloilepunye Nkokua*
And our fields will be lush green once more
Once the rains hit the ground and the moon goes down
And the season of *Olodoyorie Nkokua* beckons
Even as struggle against the tide of unpredictability
We shall overcome
For ours is the warrior spirit
We shall survive
We shall thrive
As long as we live.

Intasho/Entasho - Stand up for something

Naiteru kop - Ancient; ancestor; first maasai man

Endikirr Kerio -

Upper hills of Kerio(Cairo) one of the cities in Egypt (Misiri) which the Maasai believed they originated from. It was translated as the Maasai meant to go out of that desert land (Egypt).

Pushuka - Thank you

Oloitushul in'dapan - January

Olodolu - February

Olopaa loongakwa or Olodoyiorie Nkokua - March

Oloibor aree - April

Oloirujruj - May

Kujuorok - June

Kiperr - July

Mbushuke or Oloilepunye Nkokua - August

Ndung'us - September

Orgisan - Oktober

Liaratt - November

Irr ipalla - December

We will demonstrate in this paper :

1. That population can be solved by humane methods which are common development practices -- such as [health care](#), [education](#), [reducing infant mortality](#), [gender equity](#), [employment](#) in the [tourism](#) sector, and a substitute for [nutrition](#) that is lost by [cultivation restriction](#) -- that the NCAA promised to provide to the Maasai, but has only partially fulfilled these promises.
2. That [Carrying Capacity](#) is not a fixed number; it varies with conditions like a) the weather, b) diseases, the c) adaptability, d) perseverance and e) resilience of the Maasai, f) provision of development, g) how many rich people will buy out pieces of the NCA, and h) whether or not the NCAA follows the wisdom of the Maasai. Many experts have discarded the notion of carrying capacity.
3. That the term 'carrying capacity' has [been used by racists](#) who don't like people different in color (or different in culture) from themselves, although there are people who use that term who aren't racist - who are just ignorant of its over-simplicity.
4. That population numbers are inflated by a factor of 2 by counting immigrants and non-Maasai personnel. This changes the number of livestock units per person.
5. That wildlife has increased in the NCA since the Maasai were pressured to move to the confines of Ngorongoro over 6 decades ago.

6. Approximately 25,000 large animals, mostly ungulates, are confined in the 250km sq Ngorongoro Crater. This crater contains the highest density of mammalian predators in Africa, including the lion population, endangered wildlife species including the black rhino, wild dog, cheetah and elephant. It is the calving grounds for over 1 million wildebeest of the Great Serengeti-Mara ecosystem ...(Melabo 2020)⁷²
7. The fact that this spectacular concentration of diverse wildlife species is still enduring today in Maasailand dispels the narrative that pastoralists contribute to environmental degradation and damage to wildlife habitat.⁷²
8. The NCA has achieved impressive performance in terms of tourism goals by generating high levels of revenue, a healthy wildlife population and forest habitat. Yet the MLUM report appears to find excuses to evict the Maasai “for their own good”, since they have become disempowered socially and economically. The report blames the Maasai for the false narrative of “carrying capacity”, dragging out its specter year after year.

At the same time, the Maasai share of the tourist revenue is too small, seriously slowing the community development that would enable the Maasai to rise out of poverty.

Education, health services for both people and livestock, transport and infrastructure are far below national averages (2004) ⁸²

Failure to empower the local community goes against one of the fundamental objectives for establishing the NCA, which is to safeguard and promote the interests of the Maasai people.²

9. That the cattle are unfairly blamed for the [degradation of the rangeland](#), Homewood and Rodgers argued in their study of the Maasailand ecology: “accusations of overgrazing have typically been poorly defined, unsubstantiated, and based on spot judgements which they themselves relate to standards of range condition inappropriate to semi-arid rangelands and pastoralist/wildlife land use” “Comments on range degradation by livestock in NCA have tended to be based on supposition, and not infrequently motivated by ulterior political designs rather than objective ecological criteria”.⁸²

Shall we attribute the deterioration of the rangeland to the 280,000 livestock? Or to the 2 million wild large herbivores?⁸⁷

10. That NCA management bases its claims on erroneous overt assumptions that say a) wildlife don’t overgraze while livestock does; b) wildlife land use is more sustainable than livestock land use; c) wildlife should have the freedom to range throughout the Ngorongoro / Serengeti system while stock should not; d) stock have competitive challenge over wildlife; and e) stock are less efficient and productive than wildlife. (Lamprey 1983, Dirschl 1966, Ole Kuwai 1980, Simpson 1984a).⁸²

11. That the cattle are grazed in the day time and locked up at night, while many of the grazing animals are nocturnal (or nocturnal / diurnal), which explains why tourists tend to conclude that there is a predominance of cattle. (And also tourists aren't always right - the opinion of the Maasai should be taken over the tourists, because it is the Maasai's home).
12. While ecological resilience and sustainability of the wildlife/ pastoralist interaction in Ngorongoro remain after all these years, they still have not been matched by a socially, economically and politically sustainable system.[82](#)
13. That a three-pronged attack on the nutrition and health of both the cattle and the Maasai exists in the NCA 1) natural : interaction between cattle and wildebeest causes MCF and death to cattle, robbing them of the early grasses with needed minerals; 2) administrative: restriction from the Olmoti Crater (where there are very few wildlife anyway); 3) having to confine cattle in an area with a disease-carrying tick-ridden, weed-infested area for them to graze in.
14. At the end of this report, I will provide suggestions for a way forward - towards a win-win situation for the Maasai and the authorities, with involvement of the Maasai in the decision-making being at the top of the list.

Challenge to the NCAA:

Let the cattle graze in Olmoti crater. Their numbers are constrained enough by the resources available to them. Not many wildlife use this crater. Let the tourists have the Ngorongoro crater and the Embaki crater. Keep the tourists out of the Embulbul Depression except to get to Embaki crater. This is only right since the Maasai were supposed to be considered first.

Let the Maasai practice small-scale subsistence cultivation. The Savanna model allowed for small plots which would not hurt wildlife.

Don't assume a population of 100,000 (2020) when 40% are immigrants and 15,000 are not Maasai; instead they are employees hired by the NCAA (some of them retired), their children and spouses, also teachers, and don't forget tourist sector employees and their families.

Don't blame the Maasai for the houses of the above non-Maasai people and the shops run by tourist guides.

Hire more Maasai. In doing so, you will solve the hunger problem and lower the population and lower the number of modern houses that NCA employees were living in. Put Maasai on your board. Consult with the Maasai and hear their voice. Require that tourism employs Maasai.

Don't cater to the tourists when it hurts the Maasai. Make it 'natural'. Ban high-impact style of tourism. Luxurious resorts should have no place in a 'natural' setting. Tourists don't need to see every nook and cranny. Let the Maasai have their 'space' and places for development.

Don't blame the Maasai for rangeland degradation when burning can solve the problem. Don't blame them for lower numbers of wildlife when wildlife numbers are as high as they have ever been.

Don't pretend that you provide sufficient development like education, which, in the NCA, has been proven to be far below par compared to the rest of the division; -- or health care, which only 5 years ago in many places was incredibly deficient. If you had tried to solve the population problem, instead of just complaining, you would have realized that family planning uptake requires health care provision, and that girls education is another factor in slowing population growth. Also malnutrition and resultant infant mortality is another determinant of high fertility rate.

If you had done these things, by now the Maasai would have been self-sufficient. You are the one who is responsible for the failure of the [Outstanding Universal Value](#)

Mekure kitumito ingujit tendaraki ake duo ewaa korongoro iwejitin kumok. [Maa]
We are lacking the land for grazing due to Conservation and Tourism restrictions.(Survey Participant NNA)

BACKGROUND

The Maasai, speakers of the Eastern Nilotic Maa tonal language, are a widely dispersed group of semi nomadic pastoralists and small-scale subsistence agriculturists who occupy arid and semiarid rangelands in southern Kenya and northern Tanzania—collectively known as Maasailand.¹⁴

The principal inhabitants in wildlife areas in Tanzania have been pastoralists for over 2000 years. The current landscape and wildlife populations have evolved together with human groups.⁸²

Ngorongoro Crater has artefacts dated at 2800 years ago (Leakey, M. 1966) showing that the earliest signs of pastoralism in the area of Ngorongoro are around 2000-2500 years ago.⁸²

A century ago Europeans in a distant land, rearranging the map of Africa, drew a line from Lake Victoria to the Indian --- straight except where it curved around Mount Kilimanjaro -- which divided the British from the German sphere of influence, creating the boundary between the Kenya and Tanzania of today. It would take many years for the Maasai to realize they have been cut into two parts. South of the border in Tanzania lay a dramatic cross-section of East African geography, from the high, sweeping, arid plateau of the Serengeti in the west, through the cool, forested crater highlands, down the dramatic western escarpment, to the hot, dry plains of the Rift Valley, interspersed with conical volcanic mountains such as Oldoinyo Lengai, Long'ido, Mount Meru, and the snow-capped Kilimanjaro.

"The Words of a Maasai Warrior: 1986" a book by Tepilit Ole Saitoti, a Maasai warrior and an educated man, born in 1949 in a remote maasai village called Olbalbal, where his family still lives, between the Ngorongoro crater and the Serengeti plains.

The Ngorongoro District is situated in northwest Tanzania, framed by Serengeti National to the west, the Kenyan border to the north and the Rift Valley to the east and south – including Lakes Natron and Eyasi. With a size of 14,036 km, it is situated in the Arusha region, one of the most important areas for wildlife tourism and foreign revenue source of the country.¹⁰

Maasai culture and social and economic structures are robust, adaptable and resilient. The Maasai maximized the use of potentially abundant but unpredictable rangelands, while often facing the risks

of disease and drought. They have seen periods of famine, drastic alienation of territory, catastrophic human and cattle epidemics and stock losses.⁸²

Maasai today still practice living in harmony with wildlife, as they did more than a century ago. It is still their taboo to consume wildlife meat, kill animals that are not harmful, kill anything without a good reason, and to cut down live trees.⁸ They only killed lions as a rite of passage to warrior status, or if the lions were a threat to their cattle. But they don't do this now because their partnership with the NCAA depends on it. They lived side-by-side with other herbivores, and other wildlife. Their cows and wild zebras often graze side by side, and giraffe are often seen wandering by the Maasai bomas.⁸

The Maasai started coming into Ngorongoro Crater in the early 1800s. The Crater is an extinct volcanic crater measuring between 10 and 12 miles (16 and 19 km), Its floor is mostly grassland, extremely rich in wildlife. Elephants, black rhinoceroses, leopards, buffalo, zebras, warthogs, gnu (wildebeests), hyenas, Grant's and Thomson's gazelles, and lions can be seen there.⁴ This includes the popular "Big 5" animals: lion, leopard, rhinoceros, elephant, and Cape buffalo. The Maasai cattle grazed alongside the other herbivores, without impact to any wildlife.

Their nomadic lifestyle and stewardship of their land began to change, however, when the Europeans came to Ngorongoro and, indeed, to Africa.

Sometime in the 1880s, Italians had brought their cattle to Ethiopia, during their attempt to conquer it; and these cattle brought the disease Rinderpest, which spread over the Sub-Saharan region and decimated 90% of the vast Maasai cattle herds. Starvation ensued; making the Maasai more susceptible to smallpox and, consequently, two-thirds of the Maasai died.¹¹

Smallpox was carried by caravan traffic, which had grown up with the establishment of colonialism. Another factor of these smallpox epidemics was the increased mobility of people who were searching for food and security.¹²

The Rinderpest had removed the Masai and their cattle from the Ngorongoro crater in the 1890s. About the same time, two German brothers set up a farm in the crater where they held shooting parties to entertain their German friends. They also tried to drive out the wildebeest.⁴

In 1910, retired President Theodore Roosevelt spent a year in Africa hunting and he sent home more than 10,000 wildlife carcasses, calling Africa "the greatest of the world's great hunting grounds." This set the world's perception of Africa as a primeval landscape teeming with wildebeest and elephants, lions, and zebras. Later, the hunters became the founders of the great national parks that still cover much of the continent.

In the wake of Rinderpest, and with almost no pastoralists left to fight, the Germans and British secured control of Tanzania and Kenya.¹³

In 1904 and 1911, The British Colonial Government evicted the local people to make room for British settlers to the region, reducing Maasai lands by 60%⁹

Mortality from Rinderpest among buffalo, hartebeest, and antelope populations was also high.¹¹ This allowed the low brush to thrive, creating an ideal habitat for the tsetse fly. The tsetse fly carries sleeping sickness, a disease that is often endemic among wild ruminants, which are somewhat immune, but can cause widespread epidemics of sleeping sickness among cattle and humans.¹³

Before rinderpest arrived, the cattle herds kept by pastoralists had always stopped the spread of tsetse by grazing the bush. But when the rinderpest decimated the cattle, the woody vegetation grew fast. So after the rinderpest, when wild animal populations revived much faster than the cattle, the tsetse flies quickly spread, keeping humans and their cattle, which had previously roamed free, from returning to graze down the bush.¹³

John Reader, author of *Africa: A biography of the Continent* claimed European colonists “just assumed that the country they found packed with animals and empty of people was the way that Africa had always been.”¹³

Julian Huxley, head of UNESCO and a founder of the World Wildlife Fund, described the East African plains as “a surviving sector of the rich natural world as it was before the rise of modern man.” But this is a myth.¹³

When Conservationists created Africa’s great national parks they didn’t realize these regions were where the rinderpest had recently destroyed human society. Subsequently they decreed that humans and their cattle had to be excluded at all costs.¹³

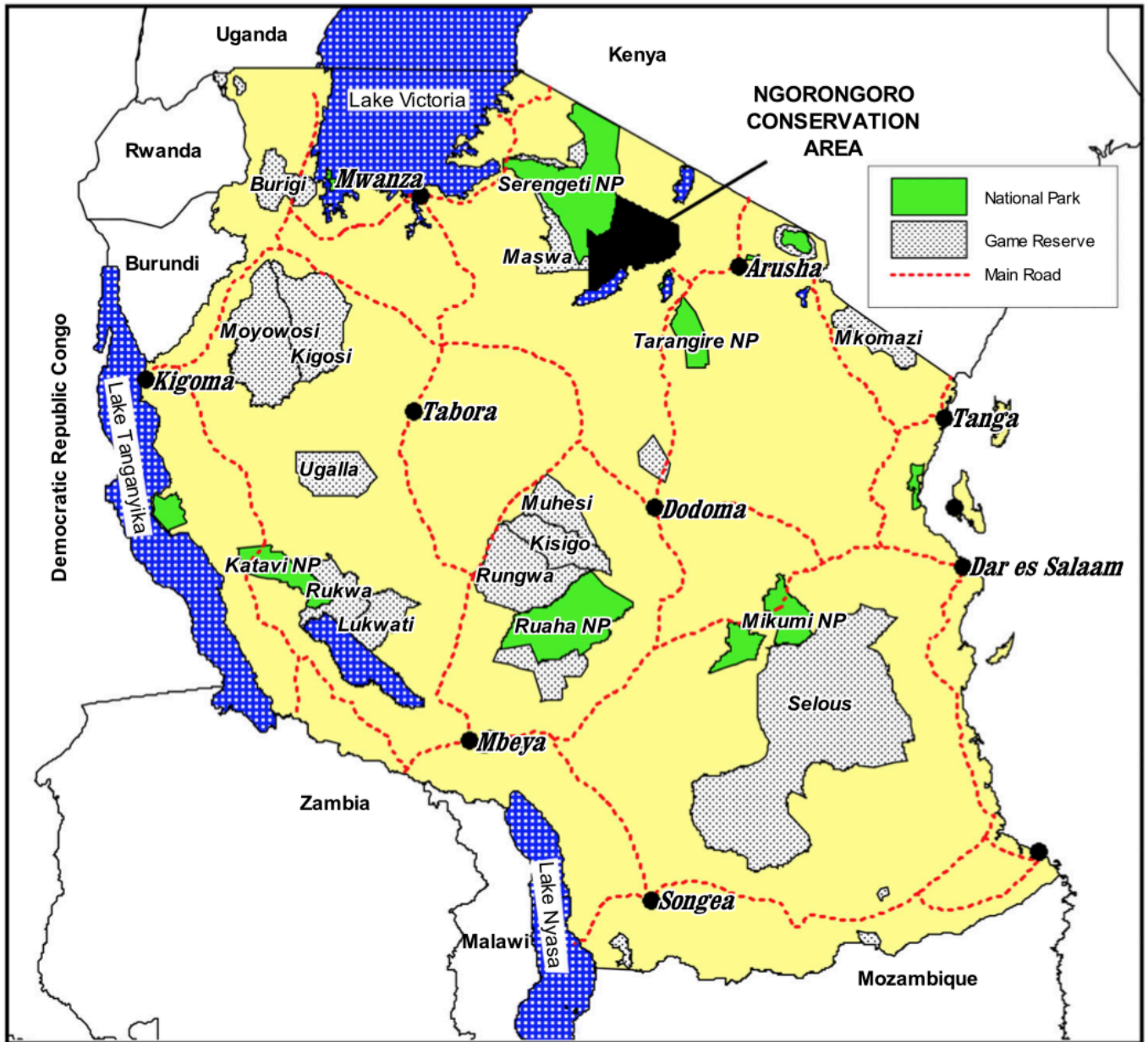


Figure 1. Location of the Ngorongoro Conservation Area in Tanzania (NCAA, 2010).

Note the large number of game parks (gray shading) - as in killing animals. Areas that Maasai can live in - and where they have lived in the past -- are taken by game-hunting tourists and parks where people can't live. Note: this map has changed some since 2010, but many of the same restrictions apply.

In 1928, the British Administration designated Ngorongoro Crater as a closed game reserve. Although hunting and cultivation was prohibited; local people were allowed to live and conduct other customary land use practices.⁴

Further land grabs took the most fertile lands from the Maasai in the 1940s. Because of their nomadic life, their climate-driven mode of land and resource use, Maasailand was thought by settlers to be uninhabited, barren or under-utilised.⁶

The National Park Ordinance of 1948 (implemented in 1951) created the Serengeti National Park. While this Ordinance maintained the principle that local communities could continue to use and occupy their customary lands within national parks, it also had teeth. Over a decade, conservation measures became increasingly strict: subsistence hunting was forbidden, human settlement and movement of domestic stock subjected to multiple restrictions, the use of fire was strictly regulated and - in 1954 - all cultivation in the Park was prohibited, even though only a small area of the Park was then under cultivation. After all these restrictions, the local pastoralists and cultivators reacted strongly and mobilised the support of the provincial and district administration for their stand against the park authority.

The cultivators gained solidarity with the pastoralists, arguing that a restriction on cultivation was only the beginning, and they were concerned that the next step would be restrictions on grazing, watering and salt licks for cattle. They resisted against expulsion following the attempts by the Park Trustees to implement their policy. The 'unexpected' resistance alarmed the Park Trustees and caused them to take a much harder conservationist line seeing that 'the continued presence of the Maasai and their stock within a national Park was irreconcilable with the purpose of a Park'.⁸⁸

Several Maasai elders were interviewed, and they talked of violence orchestrated by police and park wardens against the Serengeti Maasai before their eviction. They were literally faced with a fait accompli: to either sign on the dotted line or be forcibly evicted; and, in fact, the evictions had started even before the Agreement was signed.⁸⁸

Because of the powerful interests involved, debate was initiated in government circles which led to the publication in 1956 of a Government White Paper recommending the breaking up of the Park into three smaller parks: 1. the Western Serengeti, consisting of the bush country west of the Serengeti plains; 2. the Ngorongoro Crater and the Northern Highlands Forest Reserve; 3. and the Empakaai Crater. These would be set aside exclusively for wildlife protection while the rest of the original Park which became the NCA - a multiple land use category of protected area which allowed wildlife conservation to be pursued along with pastoralism, cultivation and tourism.⁴

However, the government rejected the recommendation of the Nihill Committee that the Ngorongoro and Empakaai craters be set aside as nature reserves within the NCA. The language of the Government Sessional Paper No. 5 of 1956 was unambiguous on this subject: "...The proposals for nature reserves in the two crater floors were not acceptable. They envisage the eventual exclusion of the Maasai from these two areas. It was not thought proper to seek Maasai consent to a relinquishment of their rights in the two craters at the same time as they were giving up established rights within the Park itself; whilst to seek their removal gradually, as the Report recommended, was contrary to the need to find a clear-cut and final solution now."

The Maasai leaders signed a statement agreeing to "move ourselves, our possessions, our cattle and all our other animals out of this land by the advent of the next short rains." In turn, the colonial government solemnly pledged that the Maasai would be: "permitted to continue to follow or modify

their traditional way of life subject only to close control of hunting” in the NCA.⁸⁸ The Maasai community would also be compensated in the form of provision of water supplies in their new home.

The governor of Tangayika under the departing British administration declared:

I should like to make it clear to you all that it is the intention of the Government to develop the [Ngorongoro] Crater in the interest of the people who use it. At the same time the Government intends to protect the game animals in the area, but should there be any conflict between the interest of the game and the human inhabitants, those of the latter must take precedence.

The first management plan described the objectives of conservation:

As the Ngorongoro conservation area is not only the home of the Masai resident therein but is also a source of water for neighbouring areas, an asset of national value and an area of international interest, the natural resources (including water, soil, flora, fauna, and domestic animals) must be conserved and developed in such a way that they may provide a maximum sustained yield of products for the benefit of the humans dependent thereon without causing deterioration in the habitat and so maintaining the area's unique tourist attraction, aesthetic value and scientific interest.

The qualifying clause of not causing habitat deterioration set the limits on development practices.⁸²

But it didn't take long for the Government to withdraw this pledge.

Referring to MOU between the Maasai Elders and Leader (Laigwanak), in late 1950s the Ngorongoro land is the alternative land given to the Maasai to go away from Serengeti; but a year after the Colonial Government demanded Ngorongoro too. NCAA needs to compensate us first, the foreign countries do the same. Simply the generated income should benefit the natives first, NCAA should recruit employees -- a good number of residents both competent professionals and non-elites, for Safari walks, Gatekeepers and in Tourism resorts - and women should be given privilege.. (Participant “O” Whatsapp)

In 1969 the Ngorongoro Conservation Area became the responsibility of the new Ministry of Natural Resources and Tourism (established in 1970) who emphasised conservation at the expense of human interests.⁸²

In 1975, the Maasai were forbidden to settle inside the Ngorongoro crater.³

In 1979 the NCA became a UNESCO World Heritage Site⁴... An overwhelming majority of residents mentioned the **loss of access to prime grazing areas as being important to them following the designation of the NCA to the WHS (World Heritage Site) list**. To make way for protection of wildlife and tourism, the community has lost more access to substantial areas of high quality grazing areas in the NCA, such as the Ngorongoro, Empakai and Olmoti craters, the Entim Olturoto forests well as the Oldupai and Alaitole archaeological sites.³

"Hifadhi itapoteza hadhi yake wakituondoa /wakitutenganisha na wanyama

The park will lose its status [World Heritage Site] by our being removed / separated from the animals" (Survey Participant NLA)

In 1993, the economic crisis among the NCA Maasai had increased to the point where it posed a threat to the physical survival of the pastoralists. The NCAA, Government of Tanzania, DANIDA and a Danish NGO by the name of Natural Peoples World (NPW), in response to appeals, reached an agreement towards a five year Economic Recovery Programme funded by DANIDA and supervised by NPW. The goal was to reduce livestock losses by improving veterinary services; better range utilisation mainly through water development; and to uplift the NCA Maasai's destitute families from the poverty trap through restocking (NCAA, 1994)⁸⁸

A number of pilot projects on containment of tick-borne diseases and restocking of the most destitute families were underway with promising results. However by 1996, the programme had collapsed due to intransigence and obstructionism on the part of the NCAA. The NCAA had done its utmost to prevent NPW from working in NCA. It ordered the cancellation of delivery of acaricides for dipping; the withdrawal of entry permits to NPW officials; the cancellation of pilot restocking projects; cancellation of tick-control workshop; cancellation of the construction of veterinary drugs depot; and it finally ordered the expulsion of NPW's coordinator in the NCA. The Danish Committee for Pastoralist Issues said that the Programme's undoing was its conceptual basis which saw empowerment of the indigenous resource tenure system under common property regimes as the best option for the NCA ecosystem and for the pastoral economy. Empowerment of the indigenous land management system would render the official institutions partly redundant. For this and other ulterior reasons, the NCAA management and GOT (Government of Tanzania) authorities would oppose any attempt to recognise the proficiency of the pastoralist resource management system and land rights' ⁸⁸

Poaching

In 1995 a review of key species population trends showed an almost total loss of the black rhinos, a loss of two thirds of the elephants and increasing losses of buffaloes to illegal hunters. In 1970, the number of rhinos in the Selous Game Reserve alone had been estimated at over 2,000, but this had dropped to less than 150 by 1996.

The Ngorongoro Crater is one of the few areas in Tanzania with a remaining viable black rhino population. Five years after the creation of the NCA, a naturalist by the name of John Goddard individually identified 108 rhinos in the Ngorongoro Crater between 1964 and 1966. This was when the Conservator of Ngorongoro and the Maasai participated in NCA management and acted as local

anti-poaching units, reducing rhino poaching to the minimum. But between 1980 and 1988, another conservationist individually identified only 14 resident and seven transient rhinos in the Crater.

The major reason for their virtual extinction is hunting for their commercially valuable horn. In Ngorongoro Crater poaching of the black rhinos began in the 1970s. NCAA officials accused the Maasai pastoralists as being responsible for the rhino poaching in the NCA, or for harbouring poachers. At no point, however, was there ever given a single incident of poaching in which the Maasai residents were involved.

The Head Warden, Stephen Makacha led the punitive anti-cultivation campaigns in 1987 in which more than a thousand hectares of food crops belonging to the Maasai pastoralists were destroyed. He was also denounced by the Maasai residents for extorting money from them to spare their crops. In 1993 in connection with the Irmelili killing - where some villagers were allegedly conspiring with poachers to hunt wild game, and one of them was shot and killed. The post-mortem report showed that the victim was shot in the head at close range. The reports of poaching given to the NCAA were in fact not correct and that allegations of poaching were intended to goad the NCAA into action against the deceased and his brothers.

In 1995, Makacha was the head of a special unit of game wardens who were detailed to guard NCA's few remaining rhinos against poachers. This unit is heavily armed and equipped with advanced detection gear and vehicles, and is on duty round the clock. Amid this tight security, a rhino affectionately nicknamed 'Amina' was killed by poachers in 1995. This was not discovered until three days later; and it was not the special guard unit but some German tourists who stumbled onto Amina lying dead with her horns gone!

An investigation showed that during the week preceding the poaching, some wardens of the special unit had inexplicably been given guard duties outside the Crater. Others were given a temporary three-day leave of absence and were told to go to Mto wa Mbu township, some 50 kilometers away. All the vehicles used in the rhino guard were taken from the guard unit inside the Crater - Makacha personally took one vehicle which overturned on his way from the Crater! All this was done by none other than Makacha himself. He signed the log books for the transfer of the vehicles, and for the guards' leave of absence. Makacha and four other wardens were arrested and charged with economic crimes (poaching of specified animals).

It was also widely rumoured - later confirmed by the Conservator - that Makacha had been involved in another illegal game poaching scam some years previously. Poached game meat would be stored in the cold rooms of the NCAA's Rhino Lodge before being transported to Arusha and Musoma towns for sale.

In 1997 an operation was ordered to apprehend herdsmen who were allegedly grazing their herds of cattle in the Forest Reserve. An armed squad of NCAA's game wardens raided Nainokanoka herdsmen who were grazing their herds of cattle in that part of the forest which forms Irkeepusi Village. Three herdsmen were severely assaulted and beaten with the iron ends of their own spears while their 'sime' (machete) were used to slash their herds of cattle with. Some 15 herds (heads?) of cattle belonging to nine villagers were either killed, maimed or lost in the ensuing stampede. Maasai warriors mobilised immediately for war against the NCAA game wardens. A potential bloodbath was only averted after the intervention of the Maasai Laigwanak, the District Commissioner and the Member of Parliament for Ngorongoro District.

The Chief Conservator admitted that it was all due to the fact that he did not know the true boundary of the Forest Reserve and apologised for the misconduct committed by his subordinates. Later, he blamed the pastoralists for the incident, arguing that they had encroached into the Forest Reserve, destroying the forest and water sources and their cattle could have infected the wildlife with anthrax. Compensation was paid to the men who were beaten and the ones whose cattle were killed.⁸⁸

In 2006, the government told the Maasai communities living inside Ngorongoro - about 60.000 people, to leave by the end of the year.¹⁴ But they didn't leave.

During 2007-2008 - A volcanic eruption of Ol Doinyo Lengai - Mountain of God - occurred on 4 September 2007, emanating an ashen steamy plume almost 20km high. Livestock fell sick and died when they tried to eat vegetation covered in ash. Or they starved to death. Some families of nomadic pastoralists relocated to other villages. Up to 5,000 people moved out of the area. Other people suffered a food crisis.²¹

In 2008, the World Heritage Centre and IUCN received reports and complaints that, in response to the Decisions of the World Heritage Committee, that the State Party would plan to forcefully evict resident populations from the property. The State Party denied this. It was noted that while the growing impacts of the resident populations on the values and integrity of the property are of concern, the General Management Plan has the dual objectives of maintaining a balance between nature conservation and peoples' needs. Any relocation needs to consider prior, free and informed consent, the exact interaction between human use and natural values in a dynamic ecosystem, the appropriateness of alternative land and facilities offered, land tenure security, as well as possible competition and conflict with other resource users in the new areas.¹⁸

The 2009 Ngorongoro Wildlife Conservation Act had the effect of placing new restrictions on human settlement and subsistence farming in the NCA. These reforms are being implemented through coercion, with local resistance to the process being met with a heavy hand by the central state ²⁰

In the same year, 2009, there was another drought, and the cattle losses in Nainokanoka, Sinon and Sendui villages ranged from 71% to 83% and 86%.¹⁰ The restrictions placed as a result of the new Wildlife Conservation Act had magnified the impact of the drought.

In 2010, the NCA purchased land in Jema in Oldoinyo Sambu where 119 Maasai residents willingly relocated for cultivation. Most residents interviewed noted that the area was too small, too remote, too erratic in terms of climate and rainfall and unproductive, and lacked infrastructure such as schools and healthcare centres. Only 77 of the 223 of relocated people were still at the site in 2016 and the rest returned to NCA. Later, when disputes with neighbors who claimed Jema was theirs, more residents considered moving back to the NCA. This shows the strong determination of the NCA Maasai to remain in the area.¹⁵

In December 2016, the NCA headquarters ordered the pastoral residents to restrain from grazing and watering of livestock in the Ngorongoro crater. A few days later, the Deputy Minister for Natural Resources and Tourism suggested for a complete prohibition on grazing in the Ngorongoro, Empakaai and Olmoti craters.²

In 2017 the December restriction was enforced, the three craters were closed to grazing. In addition, 2017 was also a drought year. As a result, a loss of 70% of livestock was reported in the NCA zone.¹⁰ This loss of livestock has significantly weakened their pastoralist economy and aggravated poverty levels.¹⁸

"Nowadays, we only hear news about restrictions, fines and sometimes imprisonment. What is wrong in having people, livestock and wildlife together? I think it is something special but they [NCA management] are no longer happy to see that happening. People are getting mistreated."
(Participant 5-community leader)²

The Maasai were denied access to many of their richest pastures without commensurate compensation.² Unable to utilize essential grazing and salt licking areas increasingly confined cattle to unproductive areas and forced people to abandon traditional movement patterns.²

Following those directives, we [community] have suffered the loss of so many cattle. Yes, they [NCA management] say it is due to recurrent drought and diseases, particularly tick-borne, but we say it is both drought and lack of water and salt minerals. Crater is essentially a source of life, very important for water and salt. ..(2017 Participant 23-Local community)²

We were evicted from Pusimoru in Serengeti during the colonial system and today they want to move us to unknown areas ... is this really fair?? While we are the same with other people in our country this seem to be *UKOLONI MAMBO LEO* [neocolonial] ..we have the right to live; we have the right to have small scale agriculture and other needs but 2008 NCA prohibit agriculture in our ancestors land ...now days we remained only with livestock keeping ...is this right for maa [Maasai] after they are doing all this bad for them?? ..(WhatsApp, participant "N", NCA Concerns group)

And then there is this: **22%** (4,596) of 20,890 total households in the NCA, **had no livestock suggesting that they have lost qualification to live in NCA** as pastoralists pursuant to NCA Act 284. MLUM 5.2.2. Tropical Livestock Unit

With the growing wildebeest population and the increasing territory they cover, more and more of NCA Maasai have to keep their herds from the short grass plains during the wet season for longer periods of time. This has implications for Maasai welfare (2015).⁸²

The resident pastorist perception is that problems of human subsistence arise largely as a result of administrative restrictions on their ability to make full use of the NCA. The ban on even small-scale cultivation, exclusion from critical grazing and watering areas, and the ban on burning. the NCAA perception is that Maasai subsistence problems arise as a direct result of an outmoded and inefficient way of life and of resource use, coupled with an inexorably increasing population. The general feeling is that if the Maasai cannot make a satisfactory living under current circumstances in NCA they should move elsewhere.⁸²

EXAMPLES OF EXAGGERATION, CONFUSION, INACCURACY, OR OUTRIGHT LIES

Whereas **insufficient and poor quality ecosystem services caused by ecosystem deterioration** increase poverty among the local communities, drought and disease incidences are the major causes of livestock mortality. For instance, in **2017 more than 77,000 livestock died in the NCA due to drought**, inadequate pasture and diseases among other factors (Fyumagwa et al., 2018). The situation in NCA indicates that both **human and ecological conditions are deteriorating** and, therefore, undermining the society well-being and sustainability of the area. The indicators of deteriorating human well-being in the area include relatively high above the national standards and also compared to the intensity in other districts in the Arusha region (Table 1). In the NCA; poverty is 70%, **illiteracy rate 64.5%**, hunger (**total dependence on handouts**), and disease levels among others. Poor ecological condition of the NCA is defined by **range degradation, declined populations of some wildlife species and reduced quality of forage due to increase of invasive alien and pioneer species**. Deterioration of the ecological system translates into inadequate resources for society and therefore leads to competition for available scarce resources such as water and forage. This has consequently generated **human-wildlife conflicts, including repeatedly reported cases of spotted hyenas attacking and killing both people and livestock, unlike in the past** (NCAA, 2018).⁶⁰ Batinoluho document

1. Insufficient and poor quality ecosystem services caused by ecosystem deterioration - if ecosystems were so poor, how did all those millions of wildlife survive?

2. In 2017, more than 77,000 livestock died in the NCA due to drought : One year does not represent the big picture. The cattle were restricted from water and good pasture that should have belonged to the Maasai. The Maasai are resilient and experienced in dealing with the problems of raising cattle. Just as a farmer who is affected by drought deals with it. If you moved them out of their homes of many years, their lives would likely be worse. Many of the locations planned for their relocation have land conflicts, less water, fewer schools, or too much salt in the water, much hotter climate, and more cattle diseases.

These restrictions are interpreted by the NCA Maasai as attempts to force them out of their home through scorched earth tactics i.e. to make their life so difficult that

3. Human and ecological conditions are deteriorating : Due to promises not kept when the Maasai were forced into a confined area after being able to migrate with the seasons.

4. Illiteracy rate 64.5% : Is it the fault of the Maasai that educational facilities and teachers are so lacking in the Ngorongoro Division that only 36.68% of the primary education students in the District are in the Ngorongoro Division; and that about 30,000 more students should be enrolled in

Ngorongoro -- if Ngorongoro Division was to keep pace with the schooling rate of the rest of the District? Literacy is raising even though the rate is falling, due to more people and never enough classrooms to accommodate them. If the classrooms had been sufficient from the beginning, population growth would have been smaller. The good news is that more people are educated enough to be volunteer preschool teachers, and that villages are supporting the building of new, rudimentary preschool classrooms.

While the population of the NCA area, which is the Ngorongoro Division of the district is currently 100,000 people, the whole district population is 200,000 (The Ngorongoro district is divided into three *divisions*: Ngorongoro; Loliondo; Sale.). This means 50% of the population resides in each part of the district.

Looking at the 2014 primary education enrollment we see the Ngorongoro Division has 40,372 students, and the Loliondo Division has 33,292 and Sale Division has 36,388. This means that only 36.68% of the primary education students are in the Ngorongoro Division, and that **about 30,000 more should be enrolled in Ngorongoro - if Ngorongoro Division was to keep pace with the schooling rate of the rest of the district.** Keeping with current education trends means the NCA will continue to have problems regarding high fertility rates and high pressure on natural resources.¹⁰

One girl passed the National Exam for passage to secondary school; she got the highest score in her ward! When it came time to find a secondary school, she was sent to a school far away. The local secondary school was full! Transportation costs to the far away school were very high; If she had no sponsor, her parents couldn't pay, and she would have been unable to fulfill her dream of getting an education and likely subject to early marriage. It is as if the NCAA wants people to fail so they can make a case for kicking the residents out of the NCA.

If population was expanding, why weren't the new secondary schools built in the area? Was it because the NCAA or UNESCO wanted to discourage development? Were they trying to guarantee failure?

5. Total dependence on handouts : False! Most residents pay for their maize most of the year.

6. Range degradation declined populations of some wildlife species: False! No species decline except due to poaching, which was likely an [inside job](#), not by Maasai.

7. Reduced quality of forage due to increase of invasive alien and pioneer species : The Maasai would have [burned](#) it if they had a say in the matter.

8. Human-wildlife conflicts, including repeatedly reported cases of spotted hyenas attacking and killing both people and livestock, unlike in the past : Part of doing business as a pastoralist in a wildlife preservation area. More injuries and deaths occur to non-pastoralists due to accidents on the [highway](#).

Conflicts of protected area and human development in NCA have reached a point where any **strategic investment in human development** has corresponding negative consequences for protected area conservation and management, and vice versa. Also there are indications of **waning relationships between the people of NCA and the Authority resulting from weakening human conditions of the people of the NCA due to water shortages, income poverty, problem animals, food insecurity, poor health, poor shelters, livestock depredation and poor education**. The main source of livelihoods for the people of the NCA is livestock.⁶⁰

“Strategic investment in human development has corresponding negative consequences”? The problem is that long-promised social services are sadly lacking. No evidence exists showing negative consequences from schools and health centers. On the contrary, these facilities will slow population growth. Higher education will allow educated Maasai to leave the area. “Water shortages”? [See water](#).

Those without livestock and do not engage in other income generating activities like beekeeping, small businesses **are destitute and account for 62.2% of all households in the NCA** ...(MLUM 5.2.6. Alternative livelihood strategies)

Far fewer than 62.2% of households have no small stock.

In the first proposed scenario, assuming that total TLUs will remain at 228,955 as it was in 2017, the TLUs per capita will drop to 1.0 by 2038. This means that supplementary food to pastoral community in NCA will increase to about 87%, which is far worse than the **current situation of 70%**. ...(MLUM 6.1. Conclusion pg 87)

Supplementary food is nowhere near 70% of consumption because supplementary food provided by the NCAA is much less than advertised.

Most households are able to buy maize most of the year. And subsidized maize supplied by the NCAA is very little. Only in times of drought or high prices is food assistance needed.

NCA where 80% of the total livestock is owned by only 3% of the community members (URT 2013). Ideally, in pastoral community under MLUM, the percentage of community members who own livestock should be much higher than what was observed in NCA. Based on minimum livestock per capita of 8.0 TLUs, which is influenced by available land of about 8,292km², Grandin et al. (1988), estimated the optimal number of people that could be accommodated in NCA to be about 25,000. Cattle of 250kg live weight is equated to one TLU, thus Maasai zebu cattle which on average weighs 180kg is equal to 0.72 TLU. Corarrubia et al. (2012) report that in many agro-pastoral communities in African countries, 80% of livestock is normally owned by 20% of the community members. **However, this is contrary to the situation in NCA where 80% of the total livestock is owned by only 3% of the community members** (URT 2013). Ideally, in pastoral communities under MLUM, the percentage of community members who own livestock should be much higher than what was observed in NCA. ... (MLUM 5.3.1 Human and livestock population trends)

Most households have some livestock. Only a small percent of households have no livestock.

From the MLUM October 2019:

1. The area is a **stronghold of the highest population of black rhino (*Diceros bicornis michaeli*) in Tanzania, hosting nearly half of the country's population**. The number of this important keystone species swelled from 12 individuals in 1980s, when UNESCO inscribed the area on the list of World Heritage Sites in danger to **60 rhinos in 2018**.
2. The NCA, unlike most of the protected areas in Tanzania has **minimal levels of wildlife poaching**. The area has, therefore, albeit these changes, **continued to maintain international standards of conservation, management of biodiversity, cultural heritage and geological landscape**.
3. In safeguarding the interests of the indigenous residents (Maasai, Datoga and Hadzabe), **NCAA has continued to support NCA community through provision of services such as, education, health, water and veterinary service**.
4. NCAA also provides **food at subsidized price to the community annually** to complement pastoral food shortage.
5. Besides the recorded achievements, local people in NCA indicated to have reservations regarding their **level of involvement in the decision making process on matters related to governance and management of NCA**.
6. Support from NCAA has not been able to cope with increasing demands, most likely due to **high human population growth**, effect of climate change and ecological stresses.
7. Indigenous residents' socio-economic conditions have deteriorated due to **food insecurity, water scarcity, income poverty, increasing human-wildlife conflicts, unfavourable laws, poor health and high illiteracy level**.
8. Increased human-wildlife conflicts are associated with increased interactions among people, wildlife and livestock.
9. The Tropical Livestock Units (TLUs) per person have declined over years from 11.6 in 1959 to 2.3 in 2017, **partly due to high livestock mortality exacerbated by deterioration of rangelands concurrent with high human population growth**. ...(MLUM Oct 2019 xi - xii)

1. The [wildlife discussion](#) in the MLUM gives us some questionable numbers. For example, the chart showing wildlife increase or decrease has some strange patterns. Also, 2017, being a drought year, is not a representative year. Better to use 2019 - to be more accurate, scientific, and fair. But then, why bother?, if your mind has been made up; like you have already signed the eviction notice in your head!

2. Poaching is mentioned about 10 times in the MLUM. In each of those times, poaching is seen as a threat, often by the residents, sometimes by outsiders. This is in contradiction to the statement that

Tanzania has minimal levels of wildlife poaching. Similarly, the statement that the area has continued to maintain “international standards of conservation”, “management of biodiversity”, ... - is a contradiction to the claims that conservation is failing due to conditions having to do with the Maasai unsustainability. There is also evidence that the poaching was an inside job.

3. The statement that the “NCAA has continued to support NCA community through provision of services such as, [education](#), [health](#), [water](#) ...” is only partly true because if sufficient education and health care had been provided 15-20 years ago, when it should have been, population now would not be so high, and the Maasai would be more educated, more healthy, and profiting from their livelihoods. Also, there is water. See [There is enough water](#)

4. The food subsidy does not come every year to every household and it is less than [half of the needed amount and it is not free](#), but subsidized.

5. It is true that Maasai have not been involved in the decision making process on matters related to governance and management of NCA. That is part of the problem.

6. Again, to repeat, the NCAA would have been more able to meet demands, if they had provided education and health services earlier. Also climate change should not be solved on the backs of the residents. They are the ones with low emissions. Also, remember, the Maasai were promised they would come first, then conservation and wildlife, then tourism. If the Maasai come first, then they will take care of the conservation and the wildlife.

7. Food insecurity, income poverty, poor health and high illiteracy level would have been solved if the NCAA had provided education and health services.

Human-wildlife conflicts were mentioned about eight times in the MLUM, but there was rarely an explanation of what it meant. In one case it was associated with cultivation, but cultivation is banned. There are dangers from wildlife, but they are part of the Maasai life, just as car accidents are to urban people.

Water security is often mentioned as a problem in the MLUM, however there could be enough water ([see There is enough water](#))

8. “Human-wildlife conflicts” is repeated. It doesn’t seem to be a serious problem with the Maasai.

9. “TLUs (livestock) per person have declined over years from 11.6 in 1959 to 2.3 in 2017.”

Remember that 2017 is a drought year? Better to use statistics from 2019. It is not scientific to cherry-pick the data to fit the desired results.

Compared with other Maasai in rural Tanzania, the Maasai in the NCA have fewer livestock, lower protein intake (primarily from milk) and lower food resources (McCabe, 2003; NBS, 2017).²

“Partly due to high livestock mortality exacerbated by deterioration of rangelands”
The rangelands have deteriorated due to invasive exotic plants. Take care of this problem first, and then see if there is still deterioration due to livestock.

From the MLUM Oct 2019

Table 4: Land cover changes (1975 to 2000)

Land cover type	Area Cover (ha) 1975	% cover 1975	Area Cover (ha) 1991	% cover 1991	Area Cover (ha) 2000	% cover 2000
Forest	93,128.6	11.6	141,940.6	17.7	138,437.0	17.2
Montane heath	24,235.4	3.0	24,235.4	3.0	24,235.5	3.0
Woodland	11,066.2	1.4	143,417.5	17.9	142,735.7	17.8
Shrubland	165,290.2	20.6	117,737.2	14.7	118,971.6	14.8
Bushland	28,048.5	3.5	40,012.2	5.0	40,012.0	5.0
Grassland	449,875.1	56.0	282,977.0	35.2	283,307.1	35.3
Highland Grassland	25,438.8	3.2	32,453.2	4.4	34,187.1	4.3
Cultivated area	108.9	0.01	16,909.1	2.1	17,695.9	2.2
Bare ground	31.2	0.004	807.7	0.1	1,021.7	0.13
Wetland	3,865.0	0.5			44.0	0.01
Water body	3,000.0	0.4	3001.0	0.4	2,408.5	17.8
Total	802,898.6	99.9	802,898.4	100.0	803,056.5	100.0

Source: Niboye, 2010

This shows Cultivated Area is 2.1% -----

However, the table was made in 2010 and is completely out of date!

Cultivation was stopped in 2013!

Savanna Modelling System

Cultivation and human population growth. “We modelled these dynamics in Savanna by adding households, with associated cultivation, to the landscape. Annual population growth of 3% was modelled. In addition, a cultivated area was modelled covering from 0 to 5% of the NCA, with cultivation added in a way that mirrored the current distribution of the Maasai households. When human population growth was modeled, the number of households, with ten people each on average, went from 5000 in year 1 to 7702 in year 15.

Land dedicated to cultivation went from 4727ha in year 1 to 7293ha in year 15. Effects upon herbivores were small, due to the low rate of cultivation [i.e. about 0.8% of the NCA], although the short grass plains are not arable and comprise about 50% of the NCA.⁵⁹

Results from the Savanna modeling suggest that:

1. the distribution of rainfall through-out the year may have a greater impact on the ecosystem than its quantity;
2. cattle may be near a carrying capacity determined not by forage limitations but because of disease risks;
3. increasing survival and reducing disease in livestock yields greater returns than increasing birthrates;
4. allowing livestock to graze in areas where they are currently excluded may lead to a slight increase in livestock populations, but sometimes leads to large declines in wildlife populations;
5. **few ecosystem effects were noted when households and cultivation were allowed to grow at 3% per year for 15years**;
6. and when up to 5% of the study area was in cultivation, there were declines 16% in livestock and wildlife populations, except for elephants, which declined by 48%.⁵⁹

Assuming year 1 was 2002, year 15 would be 2017. If cultivation had been allowed to grow at the same rate as the model, then in 2017, 7293ha would still be in cultivation - with few effects on herbivores, and the Maasai residents would have been much less poor - and more nourished, and have lower infant mortality rate - in 2017.

25,000 school children assisted through the Home Grown School Feeding Programme in Tanzania. Approximately 80 percent of the population relies on subsistence farming and 28 percent of the population lives below the poverty line. Tanzania is classified as a Least Developed Country, ranking among the lowest on the Human Development Index. According to the National Nutrition Survey (2015), almost **35 percent of children under the age of five are stunted in Tanzania.** (2016)⁷⁴

Apparently, most of the rest of the people of Tanzania are in a bad nutritional state. It's not just the Maasai.

RELOCATION

In April 2019, the Ladislaus Fredrick Batinoluho document recommended a drastic relocation of the indigenous residents from the NCA.

“The study suggests that; firstly the indigenous residents should give up their pastoral and other ways of life and move out to save the NCA.

“The study recommends abolishing the multiple land use model by relocating all indigenous people outside of the NCA in order to save the property.

“These changes include human population growth and their spatial distribution over the landscape, change in the social structure as well as lifestyles of the indigenous people”.

August 2019 Relocation Proposal

In August 2019 the Multiple Land Use Model (MLUM) analysis paper proposed five scenarios:

“(i) maintain Status Quo and allow people to continue with their activities without interference. According to the suggestion, indigenous knowledge will be applied to achieve the trio objectives of NCA

(ii) Annex some areas on the periphery of NCA to resettle humans and livestock

(iii) Demarcate NCA into two distinctive zones - one for humans and livestock and the other for natural resources conservation

(iv) Reduce humans and livestock to maintain limits of acceptable use

(v) Disregard MLUM and relocate people and livestock outside NCA”

[August 2019 Multiple Land Use Model \(MLUM\) Plan.](#)

September 2019 Relocation Proposal

However, in September 2019, a second Multiple Land Use Model (MLUM) was published. It was marked as the FINAL report.

This September 2019 MLUM merged suggestions 2, 3 and 4 above and formed one option of maintaining MLUM with adjustments.

However, this version (Sept 2019) of the MLUM does not explain where people are going to be resettled. These wards -- Nainokanka, Erkeepusi, Alaetoli, Oloirobi, Kayepus, Misigyo, Kaitekiteng, Loongoijoo, Ngoile, Meshili -- are being abolished. There is no explanation of where the people that live in these wards will be going.

Noted under the category of STRENGTHS in this version:

“Existing experience of relocating people (e.g. Ujamaa villages 1974, naturalization of Somali-Zigua at Chogo village in Handeni, and resettlement project by NCAA in Jema village).”

This is laughable because the ‘Ujamaa villages 1974’ and the resettlement to Jema village were both failures. The Somali-Zigua refugees story is about moving from a refugee camp to a decent village whereas the NCA Maasai story is about being pushed to move from the place of their origin, losing their transhumance way of life that sustained them for thousands of years.

Another “STRENGTH” is equally ridiculous:

Maintaining 50% of expected revenue from tourism that NCA may otherwise lose when all wildlife will have been extirpated before 2038 by maintaining the status quo or leaving NCA exclusively for habitation and livestock keeping. In a 2008 study about 50% mentioned that they visited NCA to see wildlife variety and abundance, wildlife migration, rhinos in their natural habitat and pristine environment.

The Ngorogoro Crater is the main attraction. Cattle have been restricted from the Ngorogoro Crater over 30 years ago. Approximately 25,000 large animals, mostly ungulates, are confined in the 250km sq Ngorongoro Crater. This crater contains the highest density of mammalian predators in Africa, including the lion population, endangered wildlife species including the black rhino, wild dog, cheetah and elephant. It is the calving grounds for over 1 million wildebeest of the Great Serengeti-Mara ecosystem ...(Melabo 2020)⁷²

WEAKNESSES noted in the Sept 2019 version were more accurate:

- i. Total removal of people from NCA may not be supported by some pastoralists, politicians and CSOs;
- ii. Ignore co-existence of conservation, tourism and community development in NCA
- iii. Loss of international recognition as a multiple land use area.
- iv. Discourage community participation in conservation and tourism development; and
- v. Total removal of people from NCA may not be supported by some pastoralists, politicians and CSOs;
- vi. Antagonism between families to be resettled and hosting community may arise and more profoundly if the two communities are of different ethnic groups that differ in their culture and mode of production.

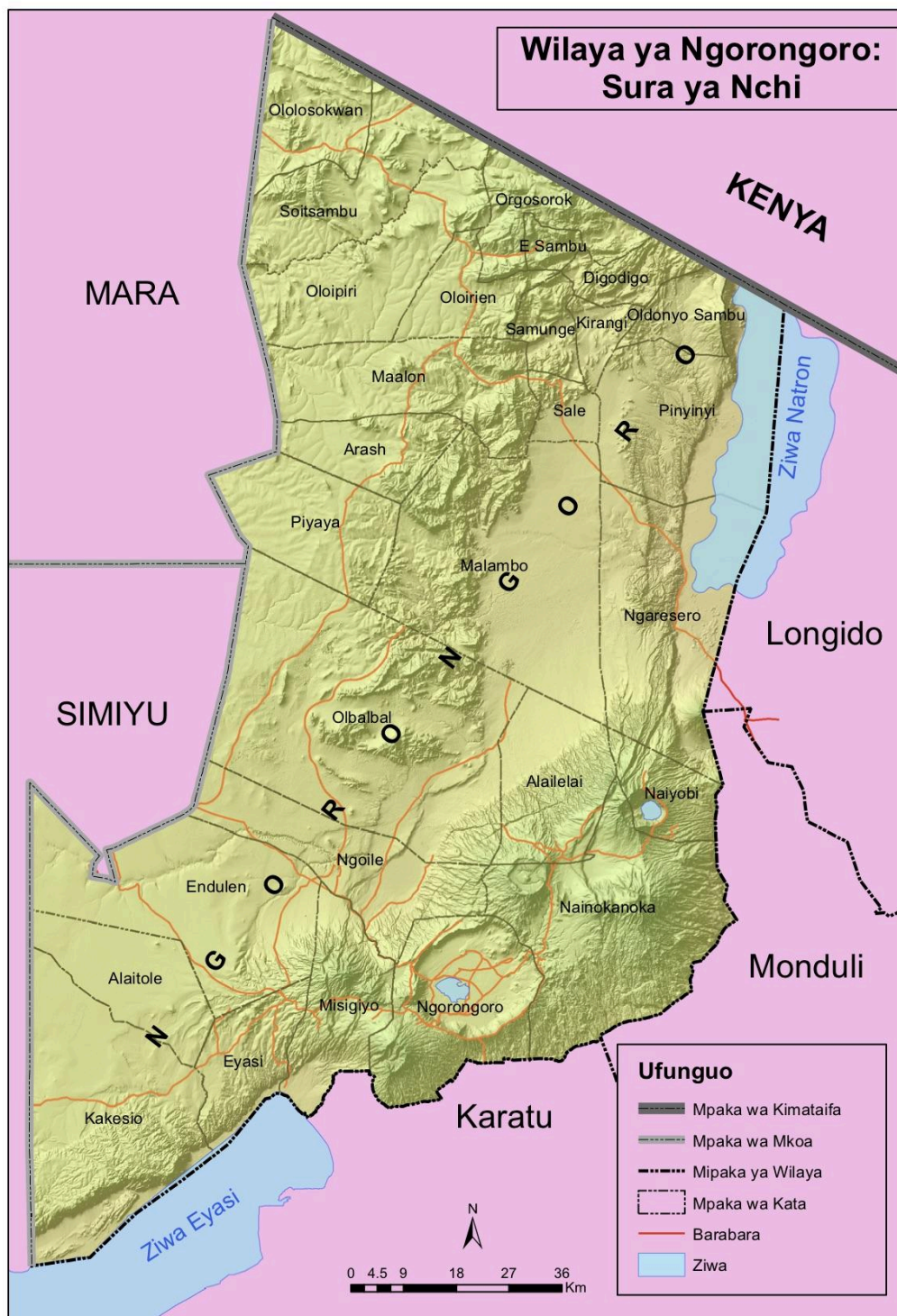
Maeneo mnayotaka kutuhamishia hakuna maji.

The places you want to move us to has no water. ...(Survey participant #MSN)

The September 2019 Relocation details can be found [here](#).

Skip to [2020 Relocation Proposal](#)

Map showing Ngorongoro Division, districts wards



2020 Relocation Proposal

2020 Resettlement Plan - Villages / Settlements (Sept.2020)

In mid September 2020, more documents started showing up. Some of them were a list of farms. Finally, one of them, "Proposed Resettlement For The Villages Within NCA", gave more information.

SETTLEMENTS FOR UPGRADING TO VILLAGE STATUS

1.1 Introduction

According to the Village Land Act No. 5 of 1999, a sub-village shall qualify to that status if it is comprised of at least 25 households while a village should have a minimum of 250 households but not more than 10,000 people. Further, a Ward shall be formed by at least three villages to qualify to that status. Additional qualifications include distant from one settlement to the other and availability of basic social services including health and education facilities.

In a process to implementing the President's Decree that was made on 15th January 2019 with respect to protected areas and development conflicts in Tanzania, particularly on guaranteeing ownership of land by the people through legalizing villages, which were inside protected areas but had lost status of being regarded as protected areas, enquiry from NDC revealed that all villages in NCA were not surveyed and no village boundaries were outlined. Sixteen (16) villages had registration numbers while nine (9) villages also possessed no registration numbers.

Those with registration numbers but without demarcated boundaries included Meshili, Ngoile, Osinoni, Kakesio, Irkepus, Bulati, Nainokanoka, Nayobi, Kapenjiro, Alailelai, Sendui, Esere, Endulen, Oloirobi, Mokilal and Olpiro.

Those without specified boundaries and registration numbers but existed in terms of elected or appointed leadership were Irtulele, Alchanimerok, Alaitole, Nasiporiong, Kayapusi, Masamburai, Misigiyo, Longojoo and Kaitakiteng.

With reference to criteria for the establishment of a village particularly, demarcation with specified physical boundaries, human population and availability of essential social services, nine (9) settlements which currently have no registration numbers namely **Irtulele, Alchanimerok, Alaitole, Kayapus, Oloirobi, Masamburai, Misigiyo, Longojoo and Kaitakiteng** as well as **Irmelili sub-settlement of Bulati settlement should be abandoned.**

Nine (9) settlements namely **Meshili, Ngoile, Osinoni, Kakesio, Alailelai, Esere, Endulen and Olpiro, which are relatively more developed in terms of social infrastructure with relatively high human population that precludes them from being important and sensitive conservation areas as well as well as Nasiporiong that that adjoins Endulen, which already have approximately 10,000 people should be demarcated with physical boundaries and given registration numbers for development like any other villages in the country.**

The remaining seven (7) settlements namely **Irkepus, Bulati, Nainokanoka, Nayobi, Kapenjiro, Sendui and Mokilal should continue to be settlements but with strict land uses and development activities. However, within proposed settlements there should be major internal resettlement and demolishing of buildings both public and private that are currently located in sensitive conservation areas like**

wildlife movement routes. Whereas private buildings that were built without permit shall be compensated, those without will not. Future encouragement of people to move outside NCA should focus more on proposed settlements and no further settlement shall be allowed.

If the proposed settlement pattern in NCA will be adopted by the Government, NCA will therefore be comprised of four wards including Gilai Meiguror, which will be annexed for the governance of natural, cultural and historical resources conservation and this arrangement will ultimately determine the structure and composition of NPC. The proposed status of settlement in NCA is shown in Table 1.

Table 1: Proposed villages and settlements in NCA

Ward	Village/Settlement	Human Population		Remarks	
		2012*	2017**	2020***	
<u>Olbalbal-Alailelai</u>	<u>Meshili</u>		6,257		
	<u>Ngoile</u>		5,202		
	<u>Alailelai/ Alchanimelock</u>		6,080		
<u>Endulen</u>	<u>Endulen</u>				
	<u>Nasipooriong</u>		11,029		
	<u>Esere</u>		4,261		
<u>Kakesio</u>	<u>Kakesio</u>		3,050		
	<u>Osinoni</u>		3,868		
	<u>Olpiro</u>		1,433		
<u>Gilai Meiguror</u>					
	<u>Irkeepus</u>		8,289		
	<u>Nainokanoka</u>		3,523		
	<u>Bulati</u>				
	<u>Naiyobi</u>		8,760		
	<u>Kapenjiro</u>				
	<u>Mokilal</u>		4,325		
	<u>Sendui</u>		3,998		
4 Wards	9 Villages and 7 Settlements				

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	<u>Osinoni</u>		3,868		
	<u>Olpiro</u>		1,433		pop 41,180
<u>Gilai Meiguror</u>					
	<u>Irkeepus</u>		8,289		strict land use & development; internal resettlement; demolishing of buildings
	<u>Nainokanoka</u>		3,523		
	<u>Bulati</u>				
	<u>Naiyobi</u>		8,760		
	<u>Kapenjiro</u>				
	<u>Mokilal</u>		4,325		
	<u>Sendui</u>		3,998		
4 Wards 9 Villages and 7 Settlements					pop 28,895

Since the mid-1970s the Maasai population of NCA has been organised into Tanzanian-style 'villages'. Each 'village' comprises a loose cluster of individual homesteads or bomas scattered over a wide area. Village centres were established by setting up dispensary, primary school and/or stock dip in or near previously existing trading centres, and in some cases by forcing homesteads to move closer. They do not correspond to the Maasai villages of the past, nor do they correspond with traditional economic or leadership structures. The traditional social systems of section, clan, age-set and boma, still govern NCA Maasai access to resources and form the basis of their risk avoidance strategies and of their efficient livestock management in an unpredictable environment. **The new villages represent the official structure through which education, health services, local government, law, and political representation outside NCA should all operate.**⁸²

3.0 RESETTLEMENT STRATEGY

3.1 Introduction

Human population in NCA had reached 93,136 people in 2017 (NBS, 2017). This means that over the past 58 years of existence since 1959 the average population growth rate, which was 20%, both from immigration and natural increase has been extraordinarily high. Where some scholars associate fluctuations in number from one year to another with different censuses, others relate it with transhumance mode of livestock production in pastoral communities where pastoralists cross homeland borders in search of good pasture and water. This means that for years when the population in NCA was relatively low could imply that NCA pastoralists crossed borders to neighbouring areas and vice versa. While Homewood and Rodgers (1991) estimated average annual growth rate in pastoral communities to be 2.5%, various scholars have recorded higher growth rates for NCA.

3.0 RESETTLEMENT STRATEGY

Assuming an average growth rate of 3.5% per year is taken, human population would have grown from 8,000 people in 1959 to an estimated 63,025 in 2020 but in actual sense it will reach 103,262, which may mean that about 40,237, which representing about 40% of the total population was accounted for by immigration. Immigrants to NCA in this context refers to families, which were not present and those which were not resettled in NCA from Moru area in Serengeti National Park when the Conservation Area was established in 1959 and their descendants.

Immigration was relatively higher during a period of 16 years between 1992 and 2008 when a ban on cultivation was lifted to allow people fill a gap of pastoral food deficit with own agricultural crops. Some people from NCA, other sectors of the Government as well as private institutions including hospitality industry, NGOs and religious organizations remained in the area after they retired. The two categories of the current NCA community form a segment, which is referred to as immigrants.

People and livestock census that was conducted in 2017 revealed that 80% of livestock, which existed in NCA was owned by only three (3%) percent of the total households in the area while the remaining

20% belonged to 97% (NBS, 2017). During community meetings with the Team, it was asserted that the majority of the three percent who owned the greater part of livestock because of their financial capacity and influence with NCA Law Enforcement staff. Those without livestock worked as labourers especially grazing and looking after livestock of the few individuals. Amazing human population growth rate coupled with remarkable livestock growth rate but that of the latter growing at a lower pace than the former, and the ultimate continued drop in livestock per capita is the cornerstone of management challenges facing NCA resident pastoralists. The challenges include poverty levels, food insecurity, rangeland deterioration, overuse of resources such as water and trees for firewood to mention a few. To that end the Team felt that reducing people and controlling future influx in the NCA coupled with strengthening administration capacity of NCAA Management may reverse the situation and guarantee sustainability of MLUM for some decades to come.

Analysis of rangeland using different approaches revealed that for the sustainability of NCA- MLUM to persevere, **the carrying capacity of the Area, which is definitely dynamic, should not exceed 20,000** in order to allow about 300,000 LHUs for both wild and domestic herbivores. In order for each of the 20,000 people that should be maintained to sustain pastoral food from a minimum of 8.0THUs, of the total 300,000 LHUs, 160,000 should be accounted for domestic herbivores and the remaining 140,000 by wild herbivores. To realize above, the Team proposes a resettlement strategy for both immigrants and those interested to move outside the area voluntarily.

3.2 Resettling Immigrants

The whole year of 2020 will be utilized for identification of immigrants and putting in place procedure for supporting them to move to their place of origin. A total of 40,000 people from about 8,000 households is estimated for this exercise and proposed to be completed by end 2021.

3.3 Acquire Land for Resettlement of those Interested to Move out Voluntarily

Although land size for resettlement will be determined by the number of people who will be interested to move out of NCA voluntarily, enough land to uphold an estimated 40,000 people from 8,000 households will be acquired for resettlement. Land use plans for acquired land for resettlement shall be prepared and establishment of social facilities, basic infrastructure such as roads water supply schemes and electricity as well as residential houses shall be put up within two years starting early in 2020 before targeted population starts to move in.

3.4 Relocating People Interested to Resettle Out of NCA Voluntarily to Specified Areas.

With effect from March 2020 an exercise to register households interested to resettle outside NCA with motivation will be launched. This will be a continuous process over the whole seven- year period of the project implementation until 2027. A Resettlement Fund shall be established and seed money provided by NCAA on behalf of the Government and the budget for the Fund shall be provided on an annual basis. Proposals to encourage and request national and international agencies to contribute to the proposed Fund shall be prepared in 2020. An incentive scheme including provision of decent houses in areas, where people will settle, establishment of social facilities for education, health, water supply and electricity will also be a continuous process starting from 2020. Establishment and improvement of residential houses and social facilities will also be provided in areas to be annexed to NCA including Gilai Meiguror Ward in Longido District and Ngaresero Village in Pinyinyi Ward, Ngorongoro District. People will not move to new settlements until residential houses and social services have been provided.

It is expected that about 52,000 people from about 6,000 households will be attracted to this program. Support and resettlement incentives on this proposed category of relocation include about 22,000 people from 4,400 households accounting for 22%, which owned no livestock at all in 2017 (NBS, 2017) and categorized as destitute by the Prime Minister's report (URT, 2013) as well as 30,000 people from 6,000 households accounting for 30% who were classified as very poor. Since immigrants may also fall in the category of destitute and very poor pastoralists, the number proposed for relocation in this category should be 40,000 people (8,000 households). If each family will be allocated with at least 10 acres of land for crop production and livestock keeping at least 120,000 acres will be required for private

ownership by households (80,000 acres) and the remaining (40,000 acres) for social facilities and recreational amenities. Motivation and resettling this group of people will commence in 2022. Resettled households shall be supported by NCAA specifically by provision of food for at most two years after resettlement to ensure that they stand on their own.

3.6 Supporting People Interested to Resettle out of NCA

Voluntarily to their own Choice. Alongside encouraging and motivating people interested to settle voluntarily outside NCA in specified areas, those interested to move to areas of their own choice will also be considered for motivation. Incentive for this group of people, which is expected to attract about 2,000 people from 400 households, will mainly receive cash and transport support to new areas where applicable. The program for this group will also be continued until 2027 when the process is expected to be completed.

1. With reference to criteria for the establishment of a village particularly, demarcation with specified physical boundaries, human population and availability of essential social services, nine (9) settlements which currently have no registration numbers namely **Irtulele, Alchanimerok, Alaitole, Kayapus, Oloirobi, Masamburai, Misigiyo, Longojoo and Kaitakiteng as well as Irmelili sub-settlement of Bulati settlement should be abandoned.**

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3. Remaining Settlements

The remaining seven (7) settlements namely **Irkeepus, Bulati, Nainokanoka, Nayobi, Kapenjiro, Sendui and Mokilal** should continue to be settlements but with strict land uses and development activities. However, within proposed settlements there should be major internal resettlement and **demolishing of buildings both public and private that are currently located in sensitive conservation areas like wildlife movement routes.** Whereas private buildings that were built without permit shall be compensated, those without will not. Future encouragement of people to move outside NCA should focus

more on proposed settlements and no further settlement shall be allowed.

If the proposed settlement pattern in NCA will be adopted by the Government, NCA will therefore be comprised of four wards including Gilai Meiguror, which will be annexed for the governance of natural, cultural and historical resources conservation and this arrangement will ultimately determine the structure and composition of NPC.

3.7 Future Control of Population Growth in NCA It is proposed that in each of the remaining four wards (4) there should be one good boarding school with modern facilities and motivated teaching staff in NCA to enable remaining children compete with other pupils from other areas for secondary school opportunities. Education facilities in settlements that will not be elevated to villages.

Problems with the 2020 Resettlement Strategy:

3.1 Problems with the [Introduction](#) (Population/Immigration)

- NCAA had a non-Maasai population of workers from NCAA headquarters and others amounting to over 3000 in 1987. This group shows a more rapid rate of increase than the Maasai and to date has taken the lion's share of basic resources.⁸²

Today the number would be higher, accounting for the growth of the tourist industry, adding primary and secondary school teachers, their families and children, health care workers, religious workers and their descendants - **to an estimated 15,000 !**

- The “footprint” of these non-Maasai people should be counted because population doesn’t matter if their footprint is zero. However, these people don’t have cattle, so the carrying capacity in terms of maximum number of cattle will not be affected. Carrying capacity should include other things beside Maasai cattle.

- Vehicles should be counted -- they have a much higher impact (“footprint”) than cattle or people who don’t have cars.

- Immigration accounts for 40% of population growth. When immigration is stopped you can use the lower population growth rate of 2.5% to calculate a lower future population. Immigration into NCA and emigration from NCA both happen rather frequently.

Sensa ya watu na makazi walihesabiwa watu ambao sio wenyeji na mifugo ambayo sio za wenyeji ndio maana tukaonekana tupo wengi na mifugo ni nyingi.

Population and housing census were counted as non-indigenous and non-indigenous livestock which is why we appeared to be in large numbers with many livestock...(Survey participant #RLN)

- Immigration is variable and unpredictable. It can't be used to predict population numbers at a given future date. For example, after the Ranching Association (MLRDP) development collapsed in 1979, the population trebled in seven years. Looking back, you can see it, but looking forward, you can't. So you have to predict population based only on average natural increase (births - deaths).

- Invasive weeds can have a large impact on the carrying capacity of the rangelands, however they still have yet to be eradicated. There is no evidence that cattle contribute to the presence of invasive weeds. Eliminating these weeds will increase the carrying capacity and allow more cattle to be included in the cap.

- Overuse of resources such as water and trees for firewood -- The park village and three lodges used an amount of firewood and charcoal equivalent to the firewood used by 1,900 Maasai households. Charcoal is commonly (and wastefully) used for space heating in lodge fireplaces designed for firewood. NCAA employees use charcoal and sometimes locally collected fuelwood for cooking.⁸²

- The fact that wildlife are thriving more than ever, despite the fact that humans have had fewer TLUs for many years belies the belief that so-called "carrying capacity" - by the document's definition - is threatened.

- This resettlement strategy document says that carrying capacity of the area should not exceed 20,000. But some people have few livestock and others have many, so using people numbers as a measure of carrying capacity is not valid. The carrying capacity claimed in this document is based on 300,000 LHUs (160,000 domestic and 140,000 wild) : where does the number 300,000 come from?

- 160,000 domestic herbivores, which is based on the times when there is drought, not on the good times. However, not every year is a drought, and in times of drought, humans are inventive and measures can be taken to alleviate the impacts of drought. That is the problem with the concept of "carrying capacity". It doesn't work in variable systems. See "[Carrying Capacity](#)".

Kuna matajiri ambao ndio wana wake zaidi ya mmoja ndio waambiwe wapunguze mifugo

There are rich people who have more than one wife and they are the ones who are supposed to be told to reduce livestock. ...(Survey participant #LMN)

- A cow has about the same impact on the rangeland as a wildebeest. Yet there are 10 times as many wildebeest than cows. During a drought, when Maasai welfare is at stake, is it really that necessary to preserve that many wildebeest? Other species of herbivores, such as antelope, are also impacted by

the large numbers of wildebeest, and some of those antelope may be so rare they may vanish altogether in a bad drought. All herbivores impact the carrying capacity of rangeland, not just cattle.

- Cattle numbers could be higher if they weren't kept out of the craters. Cattle are being artificially kept at lower numbers by the restrictions enforced by the NCA.

- Natural increase is determined by births - deaths. In the NCA, the rate of natural increase was estimated at 2.3% for the Maasai District. But 'natural increase' does not include immigration, which in 1957-78 accounted for an additional 2.2% per year, giving a total annual 4.5% growth rate. Another demographer - looking at the period of 1966-1978 - estimated an immigration rate of 3.9% per year, which gives a population growth rate of 6.2% total growth per annum in NCA. These figures span the period during which the NCA was scheduled for the Ranching Association (MLRDP) development, and during which the population trebled in seven years. This was presumably largely due to immigration in response to the lure of development and the possibility of land tenure. Between 1979 -- when the MLRDP program collapsed, to 2004 -- the rate of growth of the NCA population slowed considerably.⁸²

These estimates can be compared with the average figure of 2.2% per annum growth estimated for pastoralist populations in Kenya. This is slow compared to cultivator population growth in Kenya.⁸²

- The year to year fluctuations in NCA population are as important to the management ecology of NCA as is the overall growth trend. They stress the importance of immigration and emigration in NCA human ecology. The scale of migration highlights the imminent management problem of defining a user population and legislating user rights.⁸²

- NCA saw substantial immigration during 1960-61, coming from drought-affected lowland areas. Thousands of cattle needed to be brought into the crater, which means a corresponding influx of herders caring for these stock.

If the natural increase is the same as or lower than comparable populations outside the NCA, is it fair to pressure the NCA residents with threats of tearing down their buildings and not building classrooms -- until they 'voluntarily' leave?

- This strategy says that carrying capacity of the Area should not exceed 20,000 (the real limit is 160,000 domestic herbivores, not people) so that each of the 20,000 people would be maintained on a minimum of 8.0 THUs. Yet less than 193,000 people -- subtracting 15,000 non-Maasai people (who don't own cattle, but many who have cars) = 178,000 Maasai people who are somehow surviving (even doing daily activities, eating daily, having children, celebrating important events), even though most of them don't have 8.0THUs. (in fact they have only $20,000/178,000 = .11$ THUs - how do they do it?)

It takes between 4 and 5 TLU per capita to sustain a livelihood as a pastoralist (Fratkin and Roth 1990)⁸⁶

So which is right? 4-5 TLU or 8.0 TLUs per person?

What is left out of the equation, is that they are also eating maize. Maasai had been practicing subsistence cultivation when Serengeti became a park.

Maasai NCA residents responded in large numbers to this proposed relocation:

Some indigenous residents either felt they should not have to move or they addressed the “population problem” as a solution to avoid having to move.

Ake etinyinga korongoro atua ndokiting sapukin napishana engop enaa pee ehula irmaasai ongwesi. [Maa]

The NCA was designated as the seventh natural wonder of the earth because there is a mixture of people and animals. ...(Survey participant #SKA)

Hatutaki kupunguza mifugo na hatuondoki.

We do not want to reduce livestock and we do not want to leave. ...(Survey participant #LRA)

Kama mnataka kupunguza wenyeji watengenezeeni neema watahama wao.

If you want to reduce the population, provide an incentive for them [either to leave NCA or to have fewer babies] ...(Survey participant #RLN)

Maeneo yote ni mahususi kwa ajili ya uhifadhi na Maisha ya watu na hii inadhibitishwa kwa sababu sio kila mahali kuna makazi ili kuepuka mmomonyoko wa udongo.

All areas are critical for conservation and human life. Therefore, the settlements are not disbursed to minimize soil erosion and degradation.. ...(Survey participant #RPO)

Hatuna maeneo tunayopendekeza watu wahamie hivyo turuhusiwe kuishi pamoja na wanyama wetu.

There are no areas where we recommend people to move so we should be allowed to live with our animals. ...(Survey participant #RGO)

Kama mnataka kupunguza mifugo na watu basi pelekeni watoto shule pia muwaajiri wenye sifa na vigezo ila kwa sharti la kutoongeza mifugo na kutojenga ndani ya NCA.

If you want to reduce livestock and people then send the children to school and also employ indigenous with qualifications and criteria except on the condition that they do not increase livestock and do not build within the NCA. ...(Survey participant #JLNN)

Watu wapewe motisha ya Ajira na Elimu itasaidia kupunguza watu.

Citizen Employment and Education incentives will help reduce the number of people ...(Survey participant #NOK)

Kama tunataka wenyeji wapungue basi wapatiwe Elimu na Ajira.

If we want the people to be reduced then they should be given Education and Employment. ... (Survey participant #SDM)

Tuko tayari kupunguza na kuboresha mifugo.

We are ready to reduce and improve livestock ...(Survey participant #MMM)

Tunakiri suala la mifugo ni changamoto na tuko tayari kupunguza ila wenyeji wapatiwe elimu ya ufugaji bora.

We acknowledge the issue of livestock is a challenge and we are ready to reduce it but the locals should be educated on good animal livestock keeping. ... (Survey participant #MMM)

Other indigenous residents wanted to make it easy for others to leave - or - make sure that people who left went on record so it was known the number of those who left - (as a way of reducing population in their area).

Mtu anayetaka kuhamia ndio awajibike mwenyewe kubaini eneo analotaka kuhamia nje ya ngorongoro.

The person who wants to move should be able to identify the area where he or she wants to move outside of Ngorongoro. ... (Survey participant #KSN)

Kama kuna anayetaka kuondoka /kuhama kwa hiari yake anaweza kuondoka ila anapaswa kufuata taratibu zote za kuaga kwenye serikali ya kitongoji, kijiji na kata.

If anyone wants to leave / move voluntarily they can leave but they must follow all the farewell procedures for the local government, village and ward government.... (Survey participant #KSN1)

Suala la kupendekeza maeneo waachiwe wenyewe watakoachagua kuondoka.

The issue of recommending areas to relocate should be left to those who choose to leave. ... (Survey participant #NKS)

Kidipa apa atisir ingarn oltunganak lemolopeny engop nekinyo mamlaka nitu esiaki oonyo otenekata. [Maa]

We have identified the names of non-natives and handed them over to the NCA but they have not taken any action to this day. ...(Survey participant #NSE)

Kwa wale wanaotaka kuhamu wajiorodheshe katika ofisi ya kijiji /kata ili majina yao yapelekwe kwa mhifadhi.

For those wishing to relocate, register at the village / ward office so that their names can be forwarded to the NCA. ...(Survey participant #NOK)

Tupo tayari kushirikiana na serikali kuwabaini watu na mifugo ambao sio wenyeji.

We are ready to work with the government to identify non-native people and livestock ...(Survey participant #NLNN)

Kama kuna watu wanaotaka kuhamu basi waripoti kwenye uongozi husika ili wajulikane.

Whoever wants to move then they should report to the relevant authorities so that they can be identified. ...(Survey participant #JLNN)

Hatumzui mtu yeyote anayetaka kuhamu ilatunawashauri waje kwenye halmashauri ya kijiji ili sisi tuandikishe kuwa wamehama na sio wanakijiji wetu tena.

We do not stop anyone who wants to move but we advise them to come to the village council so that we can register that they have moved and not our villagers anymore. ...(Survey participant #NOK)

Hakuna vijiji Mahususi zilipo kwenye uhifadhi zaidi ni kuwa kila kijiji ni Mahususi kwa ajili ya uhifadhi.

Villages located in protected areas we do not know where to go and we do not know specific areas. ...(Survey participant #LRO)

Others wanted to place a condition on relocation.

Motisha apewe mtu na familia yake.

Motivation should be given to the individual and his family. ...(Survey participant #MTS1)

Tutafutieni mapori ambayo hayana watu.

Find us forests that has no people. ...(Survey participant #RGO)

Tuhamishwe kama kijiji ili kiongozi wa huku ndio akawe kiongozi kule.

We should be relocated as a village so that we can continue to be with our local leader that we have now. ...(Survey participant #RGO)

Pia kuna maeneo kama rufiji kama yatafanyiwa utafiti basi itafaa kwa watakaopenda kuhamia kwa hiari yao.

There are also places like Rufiji if it will be researched then it will be suitable for those who would like to move voluntarily. ...(Survey participant #RGO)

Tunaomba tugawiwe sehemu za kuishi ndani ya kata ya orpiro na kama kuna watu watabaki basi serikali iwapeleke sehemu zingine.

We ask that to be given our areas within Orpiro areas and if there are people left then the government should relocate them to other areas. ...(Survey participant #RGO)

Kuna ile kamati ya mawaziri 6 iliyobainisha maeneo yaliyopoteza hadhi ya kuendelea kuwa hifadhi basi sisi tupatiwe hayo maeneo.lakini kabla ya kuhamishwa waruhusiwe kuyaangalia kwanza.

There is a 6-member committee that identifies areas that have lost the status of a reserve so we should be given those areas. But before they are relocated they should be allowed to look at them first. ...(Survey participant #GGO)

Kila mke wake wa Yule aliyeko tayari kuhamia apewe hekari 10.

Each wife of anyone who is willing to move should be given 10 hectares ...(Survey participant #MMM)

Other people found fault with the relocation area and some of these wanted to place a condition on relocation.

Eneo ambalo tunataka kuhamishwa ni Masalia ya nyumbu na hadi sasa hakuna chanjo ya ugonjwa wa nyumbu.

In the area we want to relocate, there is residual of mule and so far there is no vaccine for mule disease. ...(Survey participant #EOE)

Maeneo yaliyoamriwa na serikali ya mapori 12 ni muhimu maeneo hayo tukapewa watu wa ngorongoro ili kupisha hifadhi.

Areas designated by the government 12 forests are important. These areas should be given to the Ngorongoro people to provide for conservation. ...(Survey participant #GGO)

Pia nilipwe milioni 200.

Also I want to be paid 200 million [\$86,226] if I decide to move voluntarily. ...(Survey participant #MTS)

Kama mnataka nihame mh Rais aje hapa.

If you want me to leave, let the President come here. ...(Survey participant #NLN)

Kwa Yule anayetaka kuhama alipwe milioni 200.

For the one who wants to move should be paid 200 million ...(Survey participant #MMM)

Suala la ncaa kuwa wanatoa 3B kwa wenyeji ni uongo na wananchi hawajui.

The rumours that they are giving 3 Billion to the locals are not true and the people do not know. ...(Survey participant #LMN)

Aeneo ya kakesio ni masalia ya nyumbu.

In Kakesio areas there are the remains of mules. ...(Survey participant #LMM)

Maeneo ya Kule chini kama kakesio ni maeneo ya masalia ya nyumbu.

Lower areas like Kakesio are areas of mule remains. ...(Survey participant #SNN)

Maeneo ya olduvai ni Masalia ya nyumbu hivyo kuna ugonjwa wa nyumbu.

Olduvai areas are remnants of mules so there is mule disease. ...(Survey participant #RLN)

Ore eweji neyeuni nidurieki iyiok naa eweji oingati [Maa]

The area we want to be relocated is the remains of malignant catarrhal fever.
... (Participant #NNA)

The land cited for development despite its size, does not have a single water stream and is not suitable for pastoralism. If this plan is to prevail, cows will perish in the NCA before 2038 and it will mark the end of the Maasai community in the famous world heritage site.

Maasai elder ¹⁷

Some indigenous residents wanted to be sure that cultivation would work in the new location.

Kama ni kulima basi tupewe tulime katika maeneo yetu na hata kama zikiliwa na wanyamapori haina shida.

If there is farming then we should be allowed to cultivate it in our areas and even if it is eaten by wildlife it is not a problem. ...(Survey participant #JLNN)

Tuko tayari kuhamia kama tutapatiwa maeneo yenye rutuba na hadhi sawa na eneo hili.

We are ready to relocate if we are provided with fertile areas and the same status as this area. ...(Survey participant #RLN)

Naomba kilimo cha kujikimu ili kila mtu ajitafutie chakula chake mwenyewe.

I ask to be given subsistence farming so that everyone can be able to find their own food. ...(Survey participant #MTS)

Nipewe Milioni 300 ili nikanunue eneo la Malisho,ufugaji na eneo la kulima.

I should be given 300 Million [\$129,339] to go and buy a grazing area, pasture and farming area outside of the area. ...(Survey participant #MTS)

Tunaomba tupatiwe maeneo kama maswa game reserve maana inafaa kwa kilimo na ufugaji.

We request that we be provided with areas such as Maswa game reserve as it is suitable for agriculture and animal husbandry. ...(Survey participant #RGO)

Still others were more supportive of the plan to relocate, but still wanted to place conditions.

Maoni ya kamati na yaunga mkono kwa asilimia zote kwa maana serikali inalenga kuruhusu kulima.

I support the committee's opinion with all percentages as the government aims to allow farming. ...(Survey participant #RLN)

Huu mpango wa kuhamisha wenyeji ifanyike katika miaka kumi inayokuja.

This relocation plan should be implemented in the next ten years. ...(Survey participant #MMM)

Kuna watu wanawake zaidi ya mmoja maana idadi ya mifugo ndio ina determine idadi ya wanawake ambayo mtu atataka kuwa nayo.

There are more than one woman because the number of livestock is what determines the number of women that a man wants to have. ...(Survey participant #MMM)

Kila mke wake wa Yule aliyeko tayari kuhama apewe hekari 10.

Each wife of anyone who is willing to move should be given 10 hectares ...(Survey participant #MMM)

Hakuna anayejua maeneo ya kuhamia lakini tutajadiliana ili tukiwapata tutawaambia.

No one knows where to move but we will negotiate so that if we find them we will tell them. ...(Survey participant #LRA)

Hatutaki kupunguza mifugo na hatuondoki.

We do not want to reduce livestock and we do not want to leave. ...(Survey participant #LRA)

Most indigenous resident respondents simply did not want to move.

Hatuko tayari kuhamia maeneo yenye watu.

We are not ready to move to others people areas. ...(Survey participant #MTS1)

Teneworieki ilowarak iltunganak nitungwaa korongoro sifa oloshon. [Maa]

Separating animals from humans will deprive Ngorongoro from international status
...(Survey participant #NNA)

Tumekatazwa kilimo na bado tumekaa na shida zetu na hatujalazimika kuwala wanyama na bado mnataka mtuondoe.

We have been banned from farming and we are still living with our problems and we have not been forced to eat animals and you still want to get us out of the area. ...(Survey participant #JLN)

Kuwaleta watu wa kanda zingine hapa itasababisha msongaman

Bringing people from other zones here will cause congestion. ...(Survey participant #MPN)

Hatukatai kuhama ila tumeshakuwa na wasiwasi kutokana na uhamisho wa Jema kutokuwa na matunda mazuri.

We did not refuse to move but we were already worried because of Jema was not good. ...(Survey participant #RGO)

Hatukutai kuhama iliuhamisho wa jema ya mwaka 2017 ilitupa funzo maana wasonjo walivamia na kupora maeneo yote. Leo wale watu waliohamishwa wamerudi na wamekuwa maskini zaidi.

We did not want to move so that the good transfer of 2017 taught us a lesson because the militants invaded and looted all areas. Today those exiles have returned and have become even poorer. ...(Survey participant #GGO)

Hatutaki kuhamishwa maeneo yenye watu maana itasababisha mgogoro.

We do not want to be relocated into other people areas because it will lead to conflict. ...(Survey participant #RPO)

Itu kinyal engop amu etopen endim asapuk naleng. [Maa]

We have not damaged the environment because forests have increased....(Survey participant #NKA)

Naomba mtuache tubaki hapa ili ncaa ibaki katika uhalisia wake bila kupoteza hadhi yake.

Please let us stay here so that the star stays in its reality without losing its dignity. ...(Survey participant #LMM)

Yale maeneo mliochukua kama Ngorongoro crater, Ormoti crater, Mbaashi na Embakaai crater chukueni ila mtuache hapa hapa tubaki kama tulivyo na tupewe hatimiliki ya ardhi.

Take the land you took as Ngorongoro crater, Ormoti crater, Mbaashi and Embakaai crater; take it but leave us here and stay as we are and be given land title. ...(Survey participant #SKN)

Tumekuwa kama wakimbizi katika nchi yetu pamoja na kwamba hatuwali wanyama.

We have become like refugees in our country even though we do not eat animals. ...(Survey participant #LMM)

Tulishaondolewa Moru, Ngorongoro crater, Embakaai na Ormoti na bado mnataka mtuondoe hapa hatuko tayari.

Have already removed Moru, Ngorongoro crater, Embakaai and Ormoti and you still want to get us out of here. We are not ready. ...(Survey participant #LMM)

Tunapendekeza tuendelee kubaki hapa hapa maana hatujui pakwenda.

We suggest to stay here because we don't know where to go. ...(Survey participant #SSN)

Hatukubaliani na zonation maana sisi ndio wahifadhi wa asili.

We do not agree with zoning because we are the real conservationists ...(Survey participant #SSN)

Badala yake tuwekewe makazi ya kudumu.

We should be given permanent residency. ...(Survey participant #SSN)

Tunaomba turuhusiwe kukaa hapa tulipo kwani maeneo haya ndio yanafaa kwa ajili ya ufugaji.

We want to be allowed to stay where we are as these areas are the most suitable for pastoralism. ...(Survey participant #SSN)

Tunaishi ndani ya eneo na tunajulikana kama wafugaji ila maeneo yanayofaa kwa ajili ya mifugo yamechukuliwa mfano ngorongoro crater, Embakai, Ormoti Crater na Mbaashi.

We live in the area and are known as pastoralists but suitable areas for livestock have been considered for example Ngorongoro crater, Embakai, Ormoti Crater and Mbaashi ...(Survey participant #SSN)

Hawana sehemu nyingine ya kwend.

They have no other place to go. ...(Survey participant #MPN)

Watu walioko kwenye vijiji jirani na msitu mnawahamishia wapi.

Where do you relocate people in nearby villages and forests? ...(Survey participant #MPN)

Hatutaondoka kwa sababu hatufanyiwi mambo mazuri na ncaa.

We will not leave because we are not being treated well by NCAA.

...(Survey participant #MPN)

Tunaomba turusiwe kugawana eneo hili na tujipangie matumizi bora ya ardhi.

We ask to be allowed to share this area and plan for better land use. ...(Survey participant #MPN)

Tumekaa na hawa wanyama muda mrefu na kuna watu wameuwawa na wanyama na hatujadai fidia.

We have lived with these animals for a long time and there are people who have been killed by animals and we have not claimed compensation. ...(Survey participant #LMN)

3.2 Resettling Immigrants

The whole year of 2020 will be utilized for identification of immigrants and putting in place procedure for supporting them to move to their place of origin. A total of 40,000 people from about 8,000 households is estimated for this exercise and proposed to be completed by end 2021

It has been noted that it is almost impossible to identify immigrants - one would have to remember back decades ago.

Immigration can be stopped by registration of each resident and their children. Maasai outside of the NCA who can prove that they used to live there can apply for registration. This should stop immigration and slow population growth to a point where pastoral growth is equal to or lower than cultivator population growth.

3.3 Land for Voluntary Resettlement

Land for an estimated 40,000 people from 8,000 households will be acquired for resettlement. Land use plans for acquired land for resettlement shall be prepared and establishment of social facilities, basic infrastructure such as roads water supply schemes and electricity as well as residential houses shall be put up within two years starting early in 2020 before targeted population starts to move in.

Note: this recommended resettlement place was originally part of the Ranching Association (MLRDP - Maasai Livestock and Range Development Project), which started up in the late 1960s and subsequently never was implemented. The project had managed a fairly rapid installation of technical services like dips, dams and other water development measures, and several ranching associations were set up but the only one to achieve the promised title to the land was Monduli (home of a prominent Maasai politician).

Western management concepts were found to be unrealistic and it failed with the reimposition of highly taxed, poorly organised and low-price official stock sales, and the promised land rights were never confirmed. By 1979 the MLRDP had collapsed and the project had been superseded by villagisation (*ujamaa* program).⁸²

The Maasai saw the failure of the MLRDP land tenure plans as just one more case in a long history of broken promises.⁸²

Considering the track record of the current snail's pace development in the NCA, it is difficult for Maasai residents to believe that establishment of classrooms, health clinics, basic infrastructure such as roads, water supplies and electricity as well as residential houses will ever happen, especially in two years. In the meantime, they will have left behind schools and health clinics and other development, albeit not sufficient, but much better than nothing.

3.4 Relocating Voluntarily Out of NCA

An incentive scheme including provision of decent houses in areas, where people will settle, establishment of social facilities for education, health, water supply and electricity will also be a continuous process starting from 2020. Establishment and improvement of residential houses and social facilities will also be provided in areas to be annexed to NCA including Gilai Meiguror Ward in Longido District and Ngaresero Village in Pinyinyi Ward, Ngorongoro District. People will not move to new settlements until residential houses and social services have been provided.

It is expected that about 52,000 people from about 6,000 households will be attracted to this program. Support and resettlement incentives on this proposed category of relocation include about 22,000 people from 4,400 households accounting for 22%, which owned no livestock at all in 2017 (NBS, 2017) and categorized as destitute by the Prime Minister's report (URT, 2013) as well as 30,000 people from 6,000 households accounting for 30% who were classified as very poor. Since immigrants may also fall in the category of destitute and very poor pastoralists, the number proposed for relocation in this category should be 40,000 people (8,000 households). If each family will be allocated with at least 10 acres of land for crop production and livestock keeping at least 120,000 acres will be required for private ownership by households (80,000 acres)

Motivation and resettling this group of people will commence in 2022. Resettled households shall be supported by NCAA specifically by provision of food for at most two years after resettlement to ensure that they stand on their own.

In one place it says "People will not move to new settlements until residential houses and social services have been provided." In another place it says: "Motivation and resettling this group of people will commence in 2022." Does this mean that -- in 1-1/2 years -- houses and all social services will be provided? Who do they think they are kidding?

3.7 Future Control of Population Growth in NCA

It is proposed that in each of the remaining four wards (4) there should be one good boarding school with modern facilities and motivated teaching staff in NCA to enable remaining children to compete with other pupils from other areas for secondary school opportunities. Education facilities in settlements that will not be elevated to villages.

For many years schools and health care facilities were promised, but were never adequate. Preschool classrooms are a necessity to teach the Swahili language so students can prepare for learning the English language which they will need in secondary school.

Problems with this plan:

The situation of making the villages to be settlements means you remove their power to run as villages; instead you make them settlements which means no developments can take place in those villages. ... (Participant "A" whatsapp)

The history of the NCAA providing social services is so poor, can we trust them to do it now? In the past they have offered a place to go with the promise of social services, but then they warn: "You better go now - someone else could come and take your space". ... (Name not given)

Kitii tayari pee kileku ena oshi ake kake kitii tayari sii tongibelekenyat pee iendelea hifadhi.

[Maa]

We are ready to remain as we are; but we are ready for improvements so that the reserve /Conservation can continue to last. (Survey participant NNA)

Problems with Eviction

Among the Maasai participants in a WhatsApp group about “NCA Concerns”, not one participant had anything good to say about relocation.

We were evicted from Pusimoru in Serengeti during the colonial system and today they want to move us to unknown areas ... is it really fair ?? While we are the same with other people in our country this seem to be UKOLONI MAMBO LEO (Neo Colonial) ..We have the right to live; we have the right to have small scale agriculture and other needs, but in 2008 NCAA prohibit agriculture in our ancestors land ...nowadays we remained only with livestock keeping ...is this right for Maa after doing all this bad for them??

Maa community: we are facing land alienation because of our respect and honour of our wildlife and environmental conservation. Let's say enough is enough.(Participant “N” WhatsApp)

Tuko tayari kubaki kama tulivyo ila tuko tayari kwa maboresho ili hifadhi iendelee kudumu.
We are ready to remain as we are; but we are ready for improvements so that the reserve /Conservation can continue to last.(Survey participant NNA)

We need to learn How to protect wildlife without using guns and evicting [an] innocent community in their Native Land. The Maasai community consider Ngorongoro as Home Land and not as a protected conservation area. ... (Participant “M” WhatsApp)

So in 2018/2019, Dr Manongi came with fake promise , saying it's inhuman [that people] cannot cultivate by their own and hence they cut into pieces the NCAA land and give so portion for maasai residents and name it the piece of land development zonal where agricultural can take place.

There is shortage of water there; the land is not fertile; only sheep can do well.

For instance the places that are far from the mountain use the very salt water from Oldupai Gorge. The water is salty even now.(Participant “K” WhatsApp)

“It is important to have land for farming and grazing if possible but not evict people from Nainokanoka ward more than 35,000 people to the Olbalbal which is not fertile and not even enough for the residents of that area”... (Participant “O” WhatsApp NCA Concerns)

The government and NCAA management should know that to move someone to a land with another population may cause the conflict between the evicted one and the landowner .. This is not a simple issue because of thinking one side of the coin...(Participant "ND" WhatsApp NCA Concerns group)

Ngorongoro is surrounded by Maa - this is important for protection of our wildlife inside Ngorongoro because no roaming is allowed for people from outside the areas and this work done by the indigenous to ensure our land and our animals remain safe all the time....

The population in Tanzania has grown very high, nowadays the population is around 60 million and the government is happy that it is a blessing from God to have such population, no limitation for it, especially now days ...this is according to our president JPM.

The population of people in Ngorongoro goes parallel to [the] population in other parts of Tanzania so how come for our land to limit the population while [they] allow for other areas in [the] same country??

The population of Ngorongoro community grows slowly compared to the population of wild animals... Nowadays it's totally different because the area covered by wild animals in Ngorongoro is bigger than the pastoralist activities that take place

The population of animal in Ngorongoro increases more compared to other PAsThis enough evidence for people who visit there ...for instance you may look the population of rhino previous years compare with numbers of rhino found in ngorongoro crater nowadays....how does population of local community hinder conservation?

Compare between wild animal in Ngorongoro conservation area with other places: animals in Ngorongoro around the community settlement and in the forest living friendly with people, the herbivore like zebra during the night, early the morning and late evening must go near Maasai bomas for their safety ...and this everyone knows ..so how do maasai become enemies of wild animal while they protect them during harsh and normal time???? In other areas with people, but no animal around.

..(Participant "N" WhatsApp group NCA Concerns)

Maeneo mnayotaka kutuhamishia itasababisha mgogoro baina ya wenyeji

The areas you want to relocate will cause conflict between the locals.

.... (Survey participant EOE)

The NCAA Conservation Commissioner, Dr Freddy Manongi, said the laws to protect the Ngorongoro area are too stringent, and should be reviewed since they are outdated and derail people's development. He wants to allow villagers to continue with their agricultural and livestock keeping activities.

"The laws prohibit villagers from cultivating in the area, but we all know that agriculture is the key to development," he said. He said currently there are many conflicts between NCAA and the villagers due to increased population as well as lack of grazing land. He said the area had 8,000 people in 1959 but the number increased to 93,000 in 2017.

In 2018 the Tourism and Natural Resources Minister Dr Hamisi Kigwangala formed a special committee tasked with proposing a better land use plan permitting villagers to continue with farming activities. The report has been handed over to the minister before it is taken to the president," he stated.

However, traditional leaders at the area have complained : "We were not given a chance to present our opinions on the matter. The prepared report which will later be presented to the president does not include residents' opinions."¹⁶

Manongi is not realistic on this, He just wants to justify eviction (Reallocation and zoning) using soft and promising words (agricultural and settlement development)... if the issue was little land size to accommodate population, saying the population has increase meaning the 8000km is not enough - how about 3000-5000km to be occupied by whole population of 93000? If he is real, let him convince the authority to allow the subsistence farming like that of 2000-2007.

People were enjoying sufficient food by planting on their own, cattle keeping and freedom of movement within and out of NCA.

It would be better to continue with the old MLU of 2006-2016. To us indigeous people it was very okay [better] than what now which complicates.

Maybe to my eyes, the threatening habit of the current Conservator may be contributed by lack of political will and communication between the management and indigenous leadership (Councilors and NPC leadership). (Participant "O", Whatsapp)



Village woman Participant 3 ...

[We are] not pleased by NCAA plan, that place planned by NCAA are [is] not suitable for human being and their cattle too; also the Maasai have [been] conserving wild animal so many years and they aren't hunting them so they don't know the reason why NCAA is moving [them] and they don't know where to go.

Woman participant "N3" interview by "S" Whatsapp



Village woman participant N1

"The planned [relocation] place by NCAA are not having social services like water, roads, hospitals and schools so we can't go. We have been here drinking fresh water from our [tap] and we are not eating or hunting wild animals.

Woman participant "N1" interview by "S" whatsapp

NGOs See Big Problems with Continued Funding

I was hoping to fund three new preschool and primary classrooms, and a teachers duplex - all close to the community that I sponsor. However, now I must wait and see if they are relocated. And, if they are relocated, the threat of land conflict will prevent me from wanting to fund any new classrooms. ...(NGO 1 whatsapp interview)

I wouldn't want to fund building projects in the area for health or education whilst there is a chance the communities may be relocated. ...(NGO 2 whatsapp interview)

These development projects would help lower population growth rates if conditions were good for these projects to proceed.

Former Relocation

This is not the first time Maasai eviction has been considered:

In 1904 and 1911, The British Colonial Government evicted the local people to make room for British settlers to the region, reducing Maasai lands by 60% ⁹

In 1951 the Fauna Conservation Ordinance No.17 re-established the Serengeti National Park. The Maasai were required to vacate their homeland, which they refused to obey.

In 1959, with the establishment of Serengeti National Park, the 4,000 Maasai who lived there were evicted and moved to the Ngorongoro Conservation Area. ¹⁴

In 2006, the Tanzanian government even gave an ultimatum to Maasai communities living inside Ngorongoro, around 60,000 people at that time, to vacate the area by end of the year.

"In a 2007 report, the United Nations, which oversees the conservation area as a World Heritage Site, called for sweeping changes to protect the ecosystem. Its recommendations: determining a so-called "**human use carrying capacity**" (the maximum number of people who can live in the area without degrading the environment) and moving inhabitants out on a voluntary basis to ease the strain on wildlife. Soon after came a controversial study conducted by the International Livestock Research Institute in conjunction with Colorado State University that led the Tanzanian government to propose relocating 40,000 Masai who currently live in the zone (according to the last government census), to reduce the population to just 25,000 people." ⁷⁹

In 2008, the World Heritage Centre and IUCN received reports and complaints that, in response to the Decisions of the World Heritage Committee, that the State Party would plan to forcefully evict resident populations from the property. The State denied this.

(2010) In a bid to reduce human population in NCA, 119 families that were recognized to be immigrants in NCA were resettled at Jema Village in Sale Division, Ngorongoro District. Before resettlement NCA established infrastructure for social services including a primary school, a dispensary, police post and piped water. Because there was no Memorandum of Understanding between either NDC or NCAA with either Jema Village or Sale Division, residents from the nearby Oldonyosambu Village invaded the new developed area and started to harass newcomers including depriving land that was set aside for them. Between 50 and 70 families that were settled in the village and still staying there are harassed to the extent that they are also planning to leave. Others have moved either back into NCA while others have gone as far as Handeni and Kilindi districts in Tanga Region. ... MLUM 2.9.4. Land use conflicts

Beginning in 2010, the NCA purchased land in the Oldoinyo Sambu (Jema) area (a 13,152 acre site outside the NCA) within the Ngorongoro District to which 119 Maasai residents willingly relocated for cultivation. The majority of residents interviewed for this study disagreed with the migration move, noting that the area is too small, too remote, too erratic in terms of climate and rainfall and unproductive, and lacks infrastructure such as schools and healthcare centres. In part due to poor social services, only 77 of the 223 of relocated people to Jema Oldoinyo Sambu have remained at the site in 2016 and the rest returned to NCA (Traditional Leader 2017). This decision to resettle the Maasai ignores the wishes and strong determination of the NCA Maasai to remain in the area and rejects the very policy of a Maasai pastoralists-wildlife coexistence underlying the establishment of the NCA.²

A Maasai member of Parliament for Ngorongoro District, said the conditions there "okay" but said that the Sonjo, another indigenous tribe, unrelated to the Masai, have not welcomed the new arrivals. "It's a different culture, and they don't want the Maasai there," adding that he fears a potential outbreak of violence.⁷⁹

After all these attempts to relocate the Maasai, after all the restrictions placed on their livelihood, cutting off their sustenance cultivation; after all of the promises not kept, does the NCAA wonder why the Maasai are still wanting to stay in their homeland?

October 2019 Proposed Resettlement Plan

The Oct 2019 MLUM, marked 'FINAL', rudely leaves out important resettlement information. For many wards, it does not say where their proposed resettlements are.

And, what does this mean: **“34,632 (20,000 in NCA & 14,632 in Gilal meirugoi) people” “in the new proposed NCA.”** Does this mean the 20,000 people in NCA have to move? And what about the 14,632 in Gilal meirugoi?

The October 2019 MLUM listed the same 5 options as the August 2019 MLUM (but with slightly different wording)

MLUM Oct 2019 pg 93 .. 1. Conclusion ..

Other stakeholders' groups suggested five different options including;

1. (i) maintain status quo
2. (ii) Annexing some areas on the periphery of NCA to resettle humans and livestock;
3. (iii) Demarcating NCA into two distinctive zones - one for humans and livestock and the other for natural resources conservation;
4. (iv) Reducing humans and livestock to maintain limits of acceptable use; and
5. (v) Disregarding MLUM and relocate people and livestock outside NCA (Table 18).

But then there were some changes made:

The Team of Experts merged suggestions 2, 3 and 4 above and formed one option of maintaining MLUM with adjustments (Appendix 1).

Under this option it is suggested that some areas from Loliondo, Longido (Lake Natron) and Monduli (Mto wa Mbu GCAs) be annexed to the current NCA.

Relocation of immigrants outside the area and voluntary resettlement of indigenous residents be conducted to maintain only 34,632 (20,000 in NCA & 14,632 in Gilal meirugoi) people with livestock totaling 189,264TLUs (29,264 TLU from Gilai) in the new proposed NCA.

Analysis revealed that with this option, LHUs accounted for by wild herbivores will increase from 121,742 that was estimated in 1994 (Boone *et. al*, 2002) to approximately 186,099TLUs because by assuming that all other variables will remain constant, the optimal carrying capacity for both wild and domestic herbivores will expand from 250,925LHUs that was estimated in 1994 (Boone, *et. al.*, 2002) to 375,363LHUs. In order to maintain livestock composition of the 1960, small stock population should be maintained at about 153,800 and cattle at around 248,410 animals accounting

for 6% and 94% of total 189,264TLUs respectively.

An estimated human population of 20,000 people in NCA (about 5,000 households) and their livestock will continue to reside in the new proposed NCA with strict control according to the four suggested zones and one sub-zone.

In the annexed area of Lake Natron, about 14,632 people will be accommodated at Gilai Meirugoi ward (about 3,000 households), some households will also be included from Engaresero and Pinyinyi villages after annexation from Ngorongoro district.

Where are these 20,000 people now and will they move somewhere else in the NCA?
There is no guarantee residential houses will ever happen, especially in two years.

Mekitii tayari pee erihii iyiok enaa ikandai amu etoponate ilowarak nemekitii tayari pee erishieki iyiok. [Maa]

We are not ready for the division of the zones because the animals have increased and we do not want to be separated from them.

Tenerihuhu ikandai nitungwaa kulo owarak eripoto naa teniyau niyau ikanda endenyo naa aiyeu nirisheshie iyiok ingwesi pee iting siinye. [Maa]

Dividing the areas in zones will eliminate wildlife protection so if you want to bring the zones means you are going to end this wildlife.

Kidipa apa airukokinoto iwojitin etipat tendaraki hifadhi na ore nana wejitin naa ormoti,embakaai oo kreta. Ore kuna niyeu niyau mekure aa netipat. [Maa]

We have also agreed on the zones that are important for conservation which are Ngorongoro crater, Embakai crater, Ormoti crater so we have these zones. The ones that you bring are no longer needed. (Survey participant #NNA)

GMP iliyopita iliyainisha kanda na ilishakubaliwa na wananchi.

The previous GMP [Game Management Plan] identified the zones and it was already accepted by the community. ...(Survey participant #RPO)

Dhana ya uhifadhi uendelezwe kwa kutenga kanda za malisho na kanda za kuishi ndani ya maeneo yetu.

Concept of conservation should be developed by allocating pasture zones and living zones within our areas. ...(Survey participant #RPO)

Ninakubaliana kuwa na kanda za Maendeleo ya watu na Malisho.

I agree to have people in development and grazing zones. ...(Survey participant #LMN)

Zoning ina makosa makubwa.

Zoning has serious flaws and errors. ...(Survey participant #LMN)

Tulishakuwa na zones ambazo ni Muhimu ambazo ni Ngorongoro crater,Ormoti crater, Embakaai crater,Olduvai na Mbaashi

We already had important zones, which are Ngorongoro crater, Ormoti crater, Embakaai crater, Olduvai and Mbaashi (Survey participant# EOE)

From MLUM Oct 2019 pg 103 & 104 -

TLUs per capita will, therefore, be 8.0 for the entire period up to 2038, implying that all food requirements will come from livestock. Nonetheless, because some locations within the proposed settlement and development zone can support small-scale crop production, with this option it is possible for future NCA residents to produce agricultural food particularly legumes and vegetables to complement pastoral diet.

(TLU = traditional livestock unit, equivalent to one cow)

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If the proposed scenario of status quo was to be adopted and assuming that total TLUs would remain at 228,955 as it was in 2017, the TLUs per capita will drop to 1.0 by 2038. **This means that supplementary food to pastoral community in NCA will increase to about 87%, which is far worse than the current situation of 70%.** Even if the area was left solely for livestock and an average annual human population growth rate remains at 3.5%, the population will increase over two-fold to about 200,000 people by 2038. TLUs will grow up to 1,150,000 by 2032, but thereafter start to decline and reach 800,000 TLUs by 2038 due to rangeland degradation and deterioration. If the wish of the Government is to have perpetual NCA, the indigenous pastoralists and their representative organ (NPC), the option of status quo will not be feasible to sustain coexistence of people, livestock and wildlife.

These population figures are wrong because they should not include the 15,000 people who are not Maasai, and the 40% who are immigrants.

Maybe the fact that 65% of the population is not dependent on Maasai cattle would result in a different per capita TLU.

Predictions of the option that suggests **abolishing the model indicated that resettling all people and livestock outside NCA and leave the area exclusive for wildlife and habitat conservation would be costly, availability of land to accommodate about 100,000 people may be a challenging endeavour and the exercise may face antagonism from those identified for relocation and the hosting community, particularly in areas of culture differences as was experienced with 159 families that were resettled at Jema Village, Salei Division in Ngorongoro District between 2007 and 2010.** ...MLUM Pg 94

## PROPOSED MANAGEMENT ZONES, IMPORTANCE AND USES

| N<br>o. | Area                                                                                                                                                             | Management<br>zone     | Ecological/<br>Economic<br>Importance                                                                                                                  | Uses                                                                                                                             | Remarks                                                                                                                                                                       |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Northern Highland Forest Reserve (NHFR) <ul style="list-style-type: none"> <li>• Ngorongoro crater</li> <li>• Olmoti crater</li> <li>• Empakai Crater</li> </ul> | Core conservation zone | <ul style="list-style-type: none"> <li>• Conservation</li> <li>• Wildlife refuge</li> <li>• Water catchment</li> <li>• </li> </ul>                     | <ul style="list-style-type: none"> <li>• Tourism development</li> <li>• Research and training</li> <li>• Conservation</li> </ul> | <ul style="list-style-type: none"> <li>• Restricted to communities</li> <li>• Protection of endangered and threatened species esp. rhinos and elephants and plants</li> </ul> |
| 2       | Oldupai Gorge and Laetoli footprints                                                                                                                             | Core conservation zone | <ul style="list-style-type: none"> <li>• Major cultural, historical and archaeological sites</li> <li>• Geopark</li> <li>• Conservation</li> </ul>     | <ul style="list-style-type: none"> <li>• Research and training</li> <li>• Tourism development</li> <li>• Conservation</li> </ul> | <ul style="list-style-type: none"> <li>• Restricted to communities</li> </ul>                                                                                                 |
| 3       | Lake Ndutu/ Masek Basin                                                                                                                                          | Core conservation zone | <ul style="list-style-type: none"> <li>• Conservation</li> <li>• Water catchment</li> <li>• Marshes and feeding area for water birds</li> </ul>        | <ul style="list-style-type: none"> <li>• Tourism development</li> <li>• Research and training</li> <li>• Conservation</li> </ul> | <ul style="list-style-type: none"> <li>• Restricted to communities</li> </ul>                                                                                                 |
| 4       | Engaruka historical site                                                                                                                                         | Core conservation zone | <ul style="list-style-type: none"> <li>• Cultural, historical (ruins) and archaeological site</li> <li>• Geopark</li> <li>• Water catchment</li> </ul> | <ul style="list-style-type: none"> <li>• Tourism development</li> <li>• Research and training</li> <li>• Conservation</li> </ul> | <ul style="list-style-type: none"> <li>• Restricted to communities</li> </ul>                                                                                                 |

| N<br>o. | Area                                                           | Management<br>zone                                                                                                                                      | Ecological/<br>Economic<br>Importance                                                                                                                                                                                                                                                                                                                                                       | Uses                                                                                                                                                                                | Remarks                                                                                                                                                                                                                                                                       |
|---------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5       | Selela village forest reserve area                             | Core Conservation zone                                                                                                                                  | <ul style="list-style-type: none"> <li>• Conservation</li> <li>• Water catchment</li> <li>• Wildlife corridor especially elephants</li> </ul>                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• Tourism development</li> <li>• Research and training</li> <li>• Conservation</li> </ul>                                                    | <ul style="list-style-type: none"> <li>• No settlement</li> <li>• No grazing</li> <li>• No crop production</li> <li>• Protection of migratory route, esp. elephants from NCA to Manyara and Tarangire NP is crucial.</li> <li>• Reducing human-wildlife conflicts.</li> </ul> |
| 6       | Lake Natron and its escapement and basin (Gilai meirugoi ward) | <ul style="list-style-type: none"> <li>• Transition zone.</li> <li>• Settlement and development (Magadi ni, Londolo &amp; Meirugoi villages)</li> </ul> | <ul style="list-style-type: none"> <li>• Water catchment</li> <li>• Cultural, historical and archaeological sites</li> <li>• Geopark</li> <li>• Flamingo breeding sites</li> <li>• Habitat for rare wildlife species – e.g. Oryx</li> <li>• Oldonyo Lengai active volcanic mountain</li> <li>• Conservation</li> <li>• Hot springs</li> <li>• Water falls</li> <li>• Foot prints</li> </ul> | <ul style="list-style-type: none"> <li>• Research and training</li> <li>• Tourism development</li> <li>• Conservation</li> <li>• Livestock grazing</li> <li>• Settlement</li> </ul> | <ul style="list-style-type: none"> <li>• limited settlement</li> <li>• seasonal grazing</li> <li>• controlled crop production</li> <li>• Protection of L. Natron against siltation</li> <li>• Protection of Flamingo breeding sites</li> </ul>                                |



| <b>N o.</b> | <b>Area</b>                                         | <b>Management zone</b>     | <b>Ecological/ Economic Importance</b>                                                                                                                                                                          | <b>Uses</b>                                                                                                                                                                                                                      | <b>Remarks</b>                                                                                                                                                            |
|-------------|-----------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7           | Loliondo GCA (1,038 km <sup>2</sup> )               | Core conservation sub zone | <ul style="list-style-type: none"> <li>• Water catchment</li> <li>• Buffer zone to SENAPA and NCA</li> <li>• Breeding and dispersal area</li> <li>• Wildlife migration route</li> <li>• Conservation</li> </ul> | <ul style="list-style-type: none"> <li>• Tourist development</li> <li>• Research and training</li> <li>• Conservation</li> </ul>                                                                                                 | <ul style="list-style-type: none"> <li>• No settlement</li> <li>• No grazing</li> <li>• No crop production</li> <li>• Tourism activities – e.g. trophy hunting</li> </ul> |
| 8           | Loliondo GCA (462 km <sup>2</sup> )                 | Transition zone            | <ul style="list-style-type: none"> <li>• Wildlife migration</li> <li>• Conservation</li> <li>• Tourism</li> </ul>                                                                                               | <ul style="list-style-type: none"> <li>• Livestock grazing</li> <li>• Conservation</li> <li>• tourism</li> </ul>                                                                                                                 | <ul style="list-style-type: none"> <li>• Reducing human-wildlife conflicts</li> </ul>                                                                                     |
| 9           | Oldonyo Gol & west of Kakesio                       | Transitional zone          | <ul style="list-style-type: none"> <li>• Buffer zone</li> <li>• Maasai pastoralists</li> <li>• Datoga</li> <li>• Hadzabe</li> </ul>                                                                             | <ul style="list-style-type: none"> <li>• Seasonal livestock grazing</li> <li>• Conservation</li> </ul>                                                                                                                           | <ul style="list-style-type: none"> <li>• No settlements</li> <li>• No crop production</li> <li>• Limited uses – e.g. seasonal grazing</li> </ul>                          |
| 1           | Eastern part of Endulen, Osinoni, Kakesio and Eyasi | Community development zone | <ul style="list-style-type: none"> <li>• Datoga agro-pastoralists</li> <li>• Hadzabe hunter-gatherers</li> <li>• Maasai pastoralists</li> </ul>                                                                 | <ul style="list-style-type: none"> <li>• Settlement/registered villages</li> <li>• Livestock grazing</li> <li>• Establish pasture development programme</li> <li>• Crop production</li> <li>• Community based tourism</li> </ul> | <ul style="list-style-type: none"> <li>• Human population growth and infrastructure development controlled within limits of acceptable use.</li> </ul>                    |

|           |             |                                                                                                          |                |                                                                                                      |                                                                                        |
|-----------|-------------|----------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>9</b>  | Nainokanoka | <ul style="list-style-type: none"> <li>• Nainokanoka,</li> <li>• Erkeekpus,</li> <li>• Bulati</li> </ul> | None           | <ul style="list-style-type: none"> <li>• None</li> </ul>                                             | Nainokanoka Erkeekpus are abolished                                                    |
| <b>10</b> | Naiyobi     | <ul style="list-style-type: none"> <li>• Ittulele,</li> <li>• Naiyobi,</li> <li>• Kapenjiro</li> </ul>   | None           | None                                                                                                 | Naiyobi ward and its villages is abolished because of risk of active volcano of Lengai |
| <b>11</b> | None        | None                                                                                                     | Gilai meirugoi | <ul style="list-style-type: none"> <li>• Magadini</li> <li>• Meirugoi</li> <li>• Londoluo</li> </ul> | Ward is annexed from Longido district                                                  |

The Proposed Resettlement Plan is a mystery! Wards Nainokanka, Erkeepusi, Alaetoli, Oloirobi, Kayepus, Misigyo, Kaitekiteng, Loongoijoo, Ngoile, Meshili -- are being abolished. (Maybe this means they will become settlements - with less benefits than villages).

# TOURISM

## If tourist enterprisers didn't think Maasai were important, why would they advertise them as an attraction?

Dec 09, 2019 · Meeting Maasai tribes is on many people's bucket list after seeing photos of Maasai warriors jumping high in the air, with the African savanna as their backdrop. Most safari companies offer a stop in a Maasai village in Ngorongoro Crater, promising a wonderful experience. [annaeverywhere.com](http://annaeverywhere.com) › [maasai-village-ngorongoro](#)What to Know Before a Visit to Maasai Village in Tanzania

If I have ever seen magic, it has been in Africa – John Hemingway. .... There are few sights on the planet that will stir the soul of an adventurer quite like gazing into the eyes of a Maasai warrior in full finery. ... These fearless, calm and courageous people have been captivating westerners for centuries [Meeting the Maasai Tribe - Rothschild Safaris](#)

When I first arrived at the Reserve, I was intrigued by the strange sight of men and women walking along the side of the road with what looked like heavy luggage. A closer look revealed that each Maasai (pictured moving) was in fact carrying part of their hut—the walls, doors, and all—and manually moving it. Apparently, they walk for miles carrying their homes in search of fresh grasslands for their livestock. Once they find an ideal location for grazing, they will rebuild their homes in a traditional circular pattern. [www.planetwildlife.com](http://www.planetwildlife.com) › [indigenous-travel-meeting](#)Indigenous Travel: Meeting the Maasai | Planetwildlife

One of Africa's most iconic tribes, the Maasai live a semi-nomadic lifestyle in Northern Tanzania and Southern Kenya. The tribe has modernized in some ways (at times by government force, at times by convenience), but still practice many aspects of their traditional culture. The Maasai have held onto their identity as warriors and livestock herders, while their cultural dance, clothing, and handiwork is known worldwide. If you're wondering "Where can I meet the Maasai?" one of the best ways to visit them is on safari, where you can see and learn about their lifestyle directly. [www.gondwanaecotours.com](http://www.gondwanaecotours.com) › [where-can-i-meet-the](#)Where can I meet the Maasai | Gondwana Ecotours

A visit to a Maasai tribe is a popular stop on nearly every safari you'll take through Tanzania and Kenya. After all, it is the "must see" tribe to see when going to the Serengeti or Masai Mara. [The Maasai Tribe: What a Visit is Really Like | The Planet D](#)

The Maasai Tribes of Tanzania & the Unique Culture of Their People Who are the Maasai People & History The Maasai tribe is a semi-nomadic ethnic group from East Africa, mostly settled in northern Tanzania and Kenya. Their spoken language is Maa, derived from Nilotic languages, most specifically falling under the category of Eastern Nilotic. [bucketlistjourney.net](http://bucketlistjourney.net) › [visit-maasai-tribe](#)Africa's Maasai Tribe: The Culture & Traditions of The People

We trust that a **safari** experienced at Campi ya Kanzi will be one of the most precious memories you will treasure for years to come: walking with a **Maasai** guide in his land, tracking wildlife, trekking the cloud forest of the Chyulu Hills, the green hills of Africa of Ernest Hemingway, while being profoundly and

authentically connected with the **Maasai** landlords who, with us, are the hosts. [maasai.com](http://maasai.com) › [safarisBest Kenya Luxury Safari Experience - Campi ya Kanzi, Chyulu ...](#)

Mar 24, 2020 · First of all, **Massai** or **Maasai** is a neo-hamai tribe that resides in southwestern Kenya, northern Tanzania and a small group in north-central Kenya, north of Mount Kenya, next to their relative tribe, the Samburu. This is a tribe that deals mainly with livestock farming. The **Maasai** travel long distances with their cows to **find** water while they are renowned for their fighting skills. [www.nonstoptravellers.com](http://www.nonstoptravellers.com) › [en](#) › [2020DISCOVER MAASAI TRIBE IN AFRICA - nonstopTravellers](#)

The Maasai community is well known both locally and by tourists as a community that embraces culture to the latter. A community that has not departed from the teachings of their fathers. Let us learn more about them. Culture and Traditions The warrior is of great importance as a source of pride in the .....  
...[raveldiscoverkenya.com](http://raveldiscoverkenya.com) › [the-maasai-cultureThe Maasai Culture - Travel Discover Kenya](#)

## Tourism is a major concern in the 2019 Multiple Land Use Model analysis.

NCA has several accommodation facilities including six lodges, 12 tented camps, and 48 campsites (special and public campsites). In addition, there are 52 accommodation facilities that are located in Karatu district. As a result, there has been a steady increase in tourists from 54,935 in year 1984 to 644,155 in year 2017. ... MLUM 2.8.2. Accommodation facilities

So by adding more accommodations (which have their own impact on the environment), tourism was increased. No mention of how Maasai have had to decrease their livestock numbers.

NCAA is indulgent to tourist disturbance, which sharply contrasts with NCAA attitude in banning Maasai use of salt licks in the Crater - for fear of supposed adverse impacts on conservation values. In effect, they are saying African inputs are wrong, but western vehicles and usage are right. Fifty tourist buses a day in the Crater are acceptable: one Maasai grain truck a week, bound for Nainokanoka, is not.<sup>82</sup>

NCAA's tourism gains have been astronomical. There is a gross disparity between the standard of life of the Indigenous Peoples of the area and the amount of wealth that is generated from their lands. As a result, the inhabitants are forced to engage in degrading practices to earn a living. The tourism industry in the area has also introduced many practices that are not conservation-friendly. International hotel chains have established branches in Ngorongoro, quickly becoming major sources of environmental pollution.<sup>87</sup>

To maintain the fantasy of unspoiled nature, tourists are not being told how the Maasai and other ethnic groups were originally expelled from their lands in order to create national parks and protected areas. Although not recognized or protected by any international convention, the Maasai are as much part of the Ngorongorotourism 'attraction' as the Big Five—a hunting term historically used to denote the five most dangerous African animals : lion, leopard, rhinoceros, elephant, and buffalo. Not without irony, some have expanded the Big Five to the Big Six by including the Maasai people.<sup>14</sup>

Homewood and Rogers in their book - *Maasailand Ecology* (2004) - saw no reason why the massive returns from NCA tourism would fail to support community development. They saw that community development is compatible with both wildlife conservation, human rights and aspirations.<sup>82</sup>

Encouraged by the foreign aid donors, Tanzania has pushed its tourism sector hard. It has a strategy of doubling its visitor numbers in just five years, to one million per annum by 2010. Most tourists want to see wild animals, and more than half of them head north to this part of the country. Here are the most famous safari sites in the world: the Ngorongoro crater, a natural haven for 25,000 wild animals, and the great grass sea of the Serengeti. Ngorongoro alone is expected to see over 400,000 visitors this year, earning the country \$30 million. It's clear that the money has not benefited the locals: in Engarasero half the children don't go to school, and 75 percent of all female deaths occur in childbirth. The nearest hospital is two days' walk away.”(2008) <sup>19</sup>

**“More than the presence of the Maasai, tourism pressure is now a major concern, including in relation to the potential impacts from increased visitation, new infrastructure, traffic, waste management, disturbance to wildlife and the potential for introduction of invasive species. The yearly increasing entrance fees have not stopped the rising number of tourists to Ngorongoro. The more expensive it becomes, the more people feel attracted to visit this mesmerizing ‘Garden of Eden’ (before it is too late). Contrary to the tourism imaginary, the picture attests that it can get so busy on the crater tracks that the wildlife is barely visible anymore in between the multitude of safari vehicles” ...<sup>14</sup>**



The people who engage themselves in craft making and any other souvenirs like Maasai clothing which make money are only those along the road and those who are at camps and lodges located near villages. For instance Olchamelok where Asilia is operating, Irkeekpusi with their Sopa Lodge, Kimba and Seneto and their neighbours who enjoy the economics of scale just because of cultural boma and the tourist road, Olbalbal and Endulen which share the Mto mbu/ Serengeti road.

But the number is too small and the business itself is not very profitable because sometimes the tour operators and drivers plus company operators or owners own their curioshops which they will showcase before or after the trip(working safaris) also their proper planning in this business There is no proper planning in these craft making industries by local people, from making quality goods to marketing strategies.

Also tourism activities are seasonal sometimes so people do not engage and operate throughout the year. ...(*Participant “K” WhatsApp NCA Concerns*)

With regard to tourism, the proposed actions, which have not been well implemented include placing a moratorium on any additional lodges, tented camps or other permanent commercial facilities around the rim of the Ngorongoro Crater, reducing the number of vehicles in Ngorongoro Crater by increasing the number of visitors per vehicle as well as increasing the cost per vehicle entering into the crater and reducing the number of special campsites at Ndotu and Masek lakes from 10 to five as well as rehabilitating the sites and access roads. MLUM 4.5.2. General Management Plan (2006-2016)

Another 5.0% of expected income may be foregone because in 2008, 5.0% of tourists visiting NCA said that their major attraction was to witness the coexistence between wildlife and people. ...(MLUM 5.1.4.2. Stocking rate and limits of acceptable use)

“As stated, Old Kimba used to be in an area where Serena Lodge stands today, right on the rim of the Crater. The Ngorongoro Crater Lodge also stands on the Crater rim, as does Sopa Lodge to the east. In fact, the NCAA headquarters itself stands much nearer the Crater rim than Kimba Village. Apart from Kimba, the rest are huge steel and concrete structures which are potentially more harmful to the Ngorongoro ecosystem than the small mud and corrugated iron sheets shacks belonging to the Kimba residents. In fact all these lodges were ostensibly built against the wishes of the NCAA, no environmental impact assessment was conducted prior to their construction and, already serious environmental problems are emerging in relation to them. Sopa Lodge has, for instance, been **accused of diverting for its use the Oljoronyuki Stream which is used by both Maasai pastoralists for their cattle and by wildlife**; and also of **dumping solid waste from the hotel into the Crater**. This Lodge also caught the eye of the Presidential Commission of Inquiry Against Corruption (the Warioba Commission) which observed that the construction site for it was shifted twice due to 'pressure' from the top leadership in the Ministry of Tourism”.<sup>6</sup>

“These hotels and lodges were, however, not served with similar notices to vacate the rim of the Crater. It seems to the author that the only sensible explanation for this significant omission is that these lodges are owned by powerful foreign tourist interests with connections in the high circles of power. It is understood that **Serena Lodge is owned by H.H. The Aga Khan**, while the Ngorongoro Crater Lodge is a subsidiary of the Conservation Corporation (Africa) Ltd. with interests in a number of African countries. Sopa Lodge is also owned by wealthy business interests of Asian origin with foreign connections. These powerful mercantile interests are untouchable for they bring the badly needed dollars to the Government, unlike the Maasai who are seen as a nuisance at best and something less than human beings at worst. This attitude has also been noted by previous researchers. Homewood and Rodgers have, for instance, reported being 'bluntly' told by 'officials associated with the Tanzanian Government and NCAA that NCA Maasai 'live like beasts and must be civilized!'.<sup>2</sup>

“Given the substantial number of educated and competent residents with diverse professions, it is surprising that only a small proportion of Maasai people are employed by the NCAA and lodges within the NCA. Even in jobs such as guiding walking tourists, while the Maasai are undoubtedly knowledgeable of the local landscape and natural history, the Maasai are rarely involved.”<sup>2</sup>



Maasai are not employed equal with others who are not resident, .... Lodges have few number of people who are professional and also salary payments are not equal - it's different due to education and position Level .... [There is] not any job favorite for residents Maasai ... NCCA residents who [are] employed is not more than 70 out of 700 workers of NCAA at different professions and position ...(Participant M WhatsApp)

Only 5.0% of all households in the area had at least one member partly engaged in tourism activities in 2017. (MLUM 5.2.6. Alternative livelihood strategies)

"The cultural heritage of later prehistoric periods ranges in age from about 200,000 years ago to the present. Contemporary Maasai material culture and indigenous knowledge is also an important dimension of the cultural heritage in these areas. Apart from their scientific value, such resources have high potential to enhance the tourist attraction of SENAPA and NCAA.<sup>52</sup>

Despite the inherent scientific, conservation, and management value of the SENAPA and NCAA cultural heritage resources, they are at greater risk today than at any other time in history. Because of unawareness, misunderstanding, neglect, and management conflicts, the resources are exposed to inadvertent destruction through construction of roads, lodges, airstrips, dams, and other similar land developments. Given the extent of the areas in question, the apparent abundance of cultural resources within them, and the meager research effort that has so far been directed toward their investigation, it seems obvious that such destruction may obliterate a major portion of Tanzania's cultural heritage, severely damaging both paleoanthropological inquiry and the protected areas' tourism potential.<sup>52</sup>

Looking at the Multiple Land Use Model paper of 2019, page 103, there are four different areas where the Maasai would be resettled, and in the last column of each area, the land uses are specified, and each one includes "ecotourism". This sounds like another MLUM plan, which, according to the Analysis of the Multiple Land Use Model, is doomed to failure and a source of grief for the Maasai.

According to these studies, the five attractions, which tourists enjoyed most were, wildlife abundance, that accounted for 44.0% (n=2,907), the Ngorongoro Crater (14.0%), landscape and scenery (11.0%), **wildlife-human co-existence (5.0%)** and wildlife migration (5.0%). On the other hand, when asked to list things they **disliked after their visits**, majority (49.95%) mentioned poor road condition, tourists and vehicle congestion in the Ngorongoro Crater (20.0%), poor tourist facilities in campsites (12.0%), sub-standard accommodation facilities and services (6.0%) and poor reception and customer care, which accounted for 3.0% of all the responses (Runyoro, 2009). (MLUM 5.3.1. Achievements and Lessons Learnt)



## Nobody mentioned cattle and Maasai houses in their dislike list!

"Through revenue accrued from tourism, the PC has built two secondary schools, a low-cost educational hostel, and health facilities and provided bursaries for students to study within and outside the NCA. Since its inception in 1994 and through to 2016, the PC has supported around 4,886 students from the NCA Maasai residents to various schools and colleges. Given the substantial number of educated and competent residents with diverse professions, it is surprising that only a small proportion of Maasai people are employed by the NCAA and lodges within the NCA."<sup>52</sup>

"NCAA has a number of 700-1000 work persons (from office secretary-Chief Conservator) of which, The Maasai account for 70/700. The employment consideration to the native Maasai is very low. Few are employed compared to outsiders is maybe because the recruiting persons are from outside the Area, out of NCAA. (Participant "N" Whatsapp)

"The number of Maasai working at NCAA was reduced from 100+ to around 60 employees in 2017 following the Government's termination of grade seven leavers from the public service for not having Form Four certificates of secondary education. Since the residents were earning a substantial amount of money monthly through employees' wages, such a retrenchment meant livelihood impoverishment among the NCA Maasai. Similarly, several upscale lodges at NCA almost exclusively employ non-Maasai staff."<sup>2</sup>

Safari drivers pocket much of the boma entrance fees.<sup>2</sup>

There is a wrong perception that, When the Maasai are employed they will add their population of cattle in NCAA (To say the ability to purchase more cattle is activated)."

"They worry to employ more Maasai at administrative positions perceiving that they will revenge and give priority to their fellow Maasai."

Social services especially, clean and safe water is not equally shared by the NCAA and the whole community people (The Maasai). You may find that water follows every time in NCAA headquarters and in Tourism lodges and campus but the Maasai at Olbalbal and many lowland plains fail [find it] difficult to get water for drink and domestic purpose. (Participant "O" Whatsapp)

## Promises not kept (Tourism):

1.

Ensuring improved income for NCA indigenous residents by developing a **training programme in tourism-related jobs**, encouraging **employment by tour companies**, and assisting them in **tourism-related economic activities**. MLUM 4.5.2. General Management Plan (2006-2016)

2.

The future MLUM that should be adopted should ensure that any development or activity in NCA be undertaken in a manner that does not compromise the predetermined objectives for which the area was established, which are natural resources conservation, **community development** and tourism development. MLUM 4.6.3. Wildlife Conservation Act No. 5 of 2009

3.

The National Tourism Policy seeks to support efforts, which **promote the economy and livelihood of the people, essentially poverty alleviation, through encouraging the improvement of sustainable and quality development projects** that are culturally and socially acceptable, ecologically friendly, environmentally sustainable, and economically viable. (4.3.8. National Tourism Policy (1999) )

4.

Based on the findings from various analyses and approaches the Team recommends the option of maintaining the multiple land use model with some adjustments and therefore suggests immediate, medium-term and long term actions for realizing this proposal including annexing an area of about 3,983km<sup>2</sup> and delineating the new proposed NCA into four use zones in order to enhance conservation and tourism status of the area **and increase income from tourism without compromising the rights of legal residents of NCA** and a few who are inhabiting the proposed area for annexation. MLUM page xiv: Executive Summary

In 2004: Homewood and Rogers said in their book -- Maasailand Ecology -- that NCA earns more than half all Tanzania's returns from wildlife viewing, while very few Maasai can access livelihoods based on tourism. Nor do they get their fair share of the revenue even though national policies requires it to be shared with local communities.<sup>82</sup>

## Tourism vs. Human Residents

The promise to the Maasai -- when in 1959, they were pressured to move into the NCA -- was that their interests would take precedence over game and wildlife.

NCAA Corporate Strategic Plan mentioned five things tourists disliked in the following order: **livestock in NCA, poor distribution of human settlements and buildings** that do not blend with the environment, delay at the main gates, poor road condition and inadequate interpretation services (CSP, 2017). The attractions, which tourists recognized prior to visiting NCA and those, which they liked after their visit, were all naturally occurring. Those, which they disliked were administrative, which could be addressed by NCAA without making change in the policy.

Lack of employment, non-local ownership of tourism facilities, lack of suitable compensation and consolation for human and livestock injured and killed by wildlife have outweighed the positives in improving the wellbeing of Maasai residents in the NCA.

Some Maasai women who are traditionally dependent on men as the sole breadwinners of a family benefit from cultural tourism, elevating their status. However many villages are not close to the tourist road. ...MLUM Tourists travel motivation pg 80

The Maasai human population density in NCA in 1987 was around 2.5 per km, considerably lower than that for most joint pastoralist/wildlife systems.<sup>82</sup> Most of the poor distribution is due to non-Maasai housing and shops.

## Income and Expenditures

The NCAA has been allocating 2–4% of its total revenue to the Ngorongoro Pastoral Council. Given the great social-economic problems, **inadequate distribution** of social services such as **education, water resources and veterinary services**, the amount allocated is insufficient in the eyes of the NCA residents<sup>2</sup>. Also **health care and health education must be provided**. In addition, because sources of water and salt licks are in the no-go zone, supplementary nutrition should be provided.

Financial benefits from tourism activities shall accrue in part to the local community to motivate them in conservation of tourism resources. MLUM 4.3.2. National Environmental Policy (1997)

2016/17 NCAA 104,080,561,695 tzs (about \$45 million) NPC 2,700,000,000 tzs \$1,164,000  
2.59%<sup>2</sup>

2018/19 145 Billion tzs NPC 3 billion tzs

Tourism isn't as profitable to residents as one might think. Those living near the road may profit, but many do not. Proximity to the roads may be a factor, but also there is too much competition for tourist-related livelihood. NCAA restrictions on activities may also play a part. Through cultural bomas, only about 1,500 Maasai residents have been employed as beaded handicrafts sellers, cultural performers, local guides, interpreters, administrators and herders.<sup>2</sup>

Over the past five financial years (2013/2014 -2017/2018), there has been an increase in revenue generation. However, **the proportion of disbursement of funds to support community development has been declining from 12.6% in financial year 2013/2014 to 4.8% in financial year 2017/2018** (Table 14). Likewise, the proportion of funds to support conservation of natural and cultural resources declined from 6.8% to 2.5% during the period (Table 15). Also, allocation of funds to support tourism development declined from 11.0% to 4.2% (Table 16). MULM 5.4.2. Expenditure

The Team of Experts noted that, as NCAA's tourism revenue increases, the proportion of expenditure on conservation, community and tourism development decreases. This implies that a high proportion of revenue accrued from tourism in NCA is spend [spent] for **infrastructure and other administrative issues to support the three components of the model and contributions to the government.** ... MLUM Pg 86

What happened to the promise that community development comes first? And why does administration cost more than the expenditure on conservation, community and tourism development? Why aren't the Maasai be paid first, before government?

## LIVELIHOODS

The Employment to Population Ratio has been going down - from 85.7 in 2007 to 81.9 in 2018.<sup>66</sup>

The number of Maasai working at NCAA was reduced from 100+ to around 60 employees in 2017 following the Government's termination of grade seven leavers from the public service for not having Form Four certificates of secondary education. Since the residents were earning a substantial amount of money monthly through employees' wages, such a retrenchment meant livelihood impoverishment among the NCA Maasai. Similarly, several upscale lodges at NCA almost exclusively employ non-Maasai staff.<sup>67</sup>

Supposedly, the NPC was established in 1994 to give "meaningful involvement and participation of local communities in all aspects of the NCA's management. Since its inception in 1959, there has never been a local Maasai resident employed at the top NCA management. This leads the community to feel that their interests as key stakeholders are not adequately acknowledged."<sup>67</sup>

To my disappointment the craters are exclusively open for those who bring money, I mean the tourists and wawekezaji (investors)... (Participant 6-Community Leader).<sup>67</sup>

NCAA should recruit employees -- a good number of residents both competent professionals and non-elites, for Safari walks, Gatekeepers and in Tourism resorts - and women should be given privilege.. (Participant "O" Whatsapp)

## Men and Boys Leaving the NCA

Now that many families have fewer livestock, the traditional cattle herder/maintaining family livelihood role of a teenage boy seems to be obsolete. Boys may drop out of primary school at this time if they don't see a future for themselves as a scholar.

Our sons are leaving us because of poverty and hunger. The number of cattle has gone down and many families have fewer livestock that can't support their subsistence. You also know that we don't cultivate because of the restrictions. They go there [the towns] to look for money for purchasing food and add something to the herd and paying school fees.<sup>10</sup> ... (Participant 12-Local community)

The number of men who left their families is high, approximately in every family which has 2-3 boys or men who run to towns, such as Arusha, Dar es salaam or Nairobi Kenya, in search of jobs. Many tend to be security men with no security especially on health assurance and job security. There are many reported deaths of these security persons of ours. ... (Participant "O" WhatsApp)

## VOICE OF THE COMMUNITY

Community participation in decision making and in benefits sharing is critical for World Heritage Sites to be deemed successful by local communities. "In Ngorongoro Division, the role of NCAA is preponderant in many key aspects. Because of the limitations to economic innovation and investments that the rulings of NCA pose, local pastoralists are very pessimistic about taking their own initiatives. The NCAA is seen as a ruler of the area that determines all the game rules, and locals therefore expect the NCAA to make the necessary investments to improve living conditions and livelihood opportunities. Local pastoralists are also very aware of the financial capacity of the NCAA and how it dwarfs any communal initiative they may set up. As reported in the interviews, NCAA is considerably supporting the Pastoral Council with an annual budget of ca. 2 million to initiate, manage and financing community-centered projects."<sup>2</sup>

### Meaningful Participation of Local Communities

[There is a] need for substantial dialogue with stakeholders. This means engaging local communities in all phases of management processes in order to develop a sense of "ownership" of the heritage sites. One of the key examples in this regard was the COMPACT (Community

Management of Protected Areas Conservation) initiative, which serves as a model for sustainable development through community engagement, management and shared governance leading to effective conservation and improvements to the livelihoods of people. One of the key goals for Africa needs to be the sustainable use of heritage for poverty alleviation and full involvement of stakeholders, both local and even those located at larger distances, must be achieved. Gender can also be a consideration with a view to strengthening women's participation in heritage-related decisions.<sup>60</sup> Pg 32 COMPACT <https://www.povertyandconservation.info/en/init/i0036>

In working to build the capacities of local communities, it is also important to recognize that they are the repositories of much more traditional, and other types of knowledge. We cannot imagine that this is a one-way conversation between heritage practitioners to communities. It must be a mutually respectful dialogue through which both sides listen and learn from each other.<sup>60</sup>

Apparent during the inclusion of NCA into the World Heritage List, : there was no full involvement or substantial awareness among residents about the process and importance of status change. Citing the recent (2017) preparation of the (2017–2022) NCA Corporate Strategic Plan one PC leader noted that the exercise did not give Maasai residents sufficient opportunity to meaningfully express their visions of development, concerns about their socio-cultural and economic livelihoods. According to him, the community (through the PC) objected to the concept of a zoning scheme with the no go zone agenda, seeing it as being an “official stamp” signifying the taking away of key grazing resources such as the craters.<sup>67</sup>

The Maasai in the NCA are seriously restricted by the NCAA in their political representation and empowerment. The Pastoral Council and the "Meeting of Senior Elders" seem to be an arm of the NCA Authority rather than a representative of the Maasai residents.

Villages in other parts of Tanzania can gain title to village land. In contrast, there is confusion and uncertainty over tenure rights in the NCA. Title for the whole NCA seems to belong to the NCAA, giving it the “right” to evict residents. No matter that there is not a valid conservation rationale for it. It is also a violation of human rights.<sup>82</sup>

‘Parks *with* people’ is a conservation model that emulates the natural arrangement that existed when man was a constituent part of nature.’ It can only function when all interests are given equivalent and equitable respect and attention. When one set of interests is forgotten, then the model merely serves to camouflage the agenda of modern conservation.<sup>87</sup>

## Community Voices

*Tulishaondolewa Moru, Ngorongoro crater, Embakaai na Ormoti na bado mnataka mtuondoe hapa hatuko tayari.*

Gathering the views of 40 institutions is what caused the views of the locals not to be taken or given priority. ...(Survey participant #LMM1)

*Kwa vipengele vilivyoletwa hakuna kinachotetea jamii,hakuna kinachoilenga ncaa kwa udhaifu walionao.*

For all presented there is nothing to defend society, nothing to focus on the weakness they have. ...(Survey participant #LRA1)

## HEALTH

### **Health Care has improved.**

In 2016, the Nainokanoka dispensary wasn't used much by the villagers. Government regulation required that women gave birth in a hospital. But in order to do that, they had to walk or ride a donkey 7-20 km to Nainokanoka, and take a bus to the hospital. This was an all-day trip. Many women could not wait and had their babies at home.

NGOs equipped the Nainokanoka dispensary with needed equipment and supplies. Family planning equipment and supplies were donated. Former US President Bill Clinton came to the clinic and donated a solar powered refrigerator full of vaccines. The improved health center had an ambulance, a birthing table, and a two bed maternity ward.

Multiple improvements have been made to the health care system.

2019 - The Health Centre at Nainokanoka has the catchment population of 14,178 surrounded by four satellite dispensaries namely Irkeepus, Alailelai, Bulati and Naiyobi.





May 5, 2017 .. "Yesterday the new family planning supplies the sponsor funded arrived at the Ngorongoro Health Center. Dr \_\_\_\_\_, pictured here at the health center, reported last year that the district contraceptive usage rate went from 28% to 52% from late 2016 to late 2017. This was due to funding of supplies and donor contributions to improvements to the health center."



2017 Former US President Bill Clinton. His signature was in the guest register. He donated a solar-powered refrigerator full of vaccines.

## Problems with Health Facilities

Women can now give birth at this sub-hospital, but the clinic is too far for a woman in labor to walk. There is an ambulance, but many times the ambulance is transporting another patient.

Another reason many women birth their babies at home is that, in many cases, they don't feel encouraged to go there. After 2019 the doctor retired and a new doctor took over, but there was no interpreter from Swahili to Maa.

Yes there's a language problem; many people are not speaking Swahili language so if they go there and there is no translator, they turn back home without treatment. ...(Participant "S" whatsapp)

Since then, interpreters were hired at low cost, and women can now go to the doctor and benefit from the doctor's advice.



These two medical interpreters take turns accompanying women patients to the clinic so the doctor's instructions in Swahili can be understood.

Family planning has suffered from lack of communication in this village. Usage rates had gone from 48% to 13% when there was not an interpreter or understandable communication

## FAMILY PLANNING

In 2018 the contraceptive usage rate of the Nainokanoka clinic area was 43%. But in 2019 it was only 13%. Family Planning methods are supplied by the government of Tanzania. But president Magufuli is against family planning, and that may explain the low contraceptive usage rate in 2019. Another reason for low usage rate: the good doctor retired and the current staff doesn't speak Maa.

Target population in our catchment area for Family Planning is 799 women of [child] bearing age per year, we managed to protect 341 women out of 799 (42.7%).  
..(2018 Dr "S" - email)

Another health clinic at Irkeepusi village has a female medical interpreter. She is someone women can talk to about family planning. Having a female health advisor is an important component of family planning education.

The average contraceptive use rate for Tanzania is only 34%.

## WATER

Water in Africa is priceless ... where it is, there is a life. Because of that, here in Africa, rain is considered as a BLESSING! The rain has particular importance for the Maasai. God here is called enkal Narok (The Black God) He/She is the gracious God who blesses the people with black clouds

that herald rain, rain that provides plenty of grass for herds, and plenty of milk at home.” (Nov 2015)  
<http://nedsmmission.org/fr-arkado-talks-water/>

The National Water Policy identifies the **danger of water scarcity** in a few years to come, by showing an annual average water availability per capita will decline by 45% by 2021. This is in tandem with **NCA, which faces acute scarcity of water both in quantity and quality**. If MLUM is to be sustained, intensive survey of water availability in NCA to uphold the growing resident human and livestock population should be conducted. (MLUM 4.3.11. NationalWaterPolicy(2002) )

### **There is Enough Water in the highlands.**

An NGO reported that a survey of water from the Munge River as it comes out from Olmoti crater, which was advised by the NCAA, showed that there was plenty of water to supply the needs of the animals, the lodges and Xyz (name withheld) subvillages. The water was to be piped by gravity, and the funding was secured, but the NCAA never provided the water rights document survey plans were eventually used to supply water to nearby secondary school and Xyz dispensary and ranger posts, but not the 4 subvillages as planned.

“I wouldn't want to fund building projects in the area for health or education whilst there is a chance the communities may be relocated,” said the NGO.

So, there is enough water. The NCAA failed to provide the papers needed to deliver the water. Was it through neglect, or was intent to make the MULM fail so they would have an excuse to evict the Maasai?

Water has been a recurrent problem in times of drought since the craters that are the source of water became a no-go zone. However, in contradiction to what the MLUM implies, access to the Olmoti crater has been allowed in the dry season since late 2017. Also, a survey conducted by an NGO showed that there is plenty of water in the highlands which requires a gravity pipe which was already funded but never approved by the NCAA.

In December 2016, the NCA headquarters ordered the pastoral residents to restrain from grazing and watering of livestock in the Ngorongoro, Empakaai and Olmoti craters.

During a severe drought from August to December 2017 40–60% of the Maasai cattle died. During this time, the price of cattle crashed while the price of maize increased drastically. The TLUs

decreased to 3.2 per person. According to national standards, a person requires at least 8.0 TLU in order to sustain the food base. For Maasai, livestock are subsistence, enhance their food security, and act as a capital investment and form of insurance.<sup>2</sup>

Tourism uses a significant portion of the water in the NCA: water used for tourists in lodges resulted in declines of browsing antelopes within Ngorongoro Crater.<sup>59</sup>

For social services, clean and safe water is not equally shared by the NCAA and the community people. You may find that water follows every time in NCAA headquarters and in Tourism lodges and campus but the Maasai at Olbalbal and many lowland plains find it difficult to get water for drink and domestic purpose. ... (Participant "O" WhatsApp)

Even in times of drought, when the Maasai experience the shortage of water available to them due to restriction from water-rich areas, the water often goes first to lodges on the Ngorongoro crater rim to fill tanks and swimming pools, then goes to villages for livestock and human beings to use. By putting the welfare of the community last, water scarcity weakens livestock and increases the women's workload, hauling water.<sup>2</sup>

Energy loss incurred by long treks to water (and less time left for feeding) was found to be the most important constraint on milk production.. Reduction of this constraint would release resources for useful production (milk, meat and calves) or at least lessen the energetic costs to animals barely surviving on sub maintenance diets. Even where water is too saline or alkaline for long-term use, or of limited quantity, they nonetheless may extend the use of valuable grazing for a few weeks, critical to dry season stock survival.



## Water in the Plains

The plains are poorly supplied with springs and permanent water sources because the peaks of the Crater Highlands intercept the easterly moisture laden winds and force them to drop most of the rain on the eastern side compared to the northwestern part of the region, which lies in rain-shadow area (Aikman and Cobb, 1997). For instance, between 1963 and 2017, the only long-term station (on the Ngorongoro Crater rim at NCAA headquarters shows an annual average of 870.5mm. The spatial rainfall variability is depicted by annual rainfall data from NCAA HQ and Ndutu rain stations (Figures 5 and 6). The latter station received an annual average of less than 500mm between 1985 and 2017.

Underground water in many parts of the lowlands is saline with fluoride concentration estimated to be as high as 20mg/liter, which is extremely beyond consumption limits for both livestock and humans, which is 4mg/litre (Aikman and Cobb, 1997). .... MLUM Oct 2019



Water is scarce in the lowlands.

A hole in the river sand is dug deeper and deeper until the person inside can't reach the upper level where she pours the water, cup by cup, into the pail, until it is full. Then her friend pours the water into a jug, which will be loaded on the donkey.

And the water is not clean - it is salty, but people and livestock drink it.

This takes her about two hours to fill her jugs. And if there are more people waiting, she must wait longer.

The stream in the valley flows water during the rainy season from late November, December through April. But from May to September there is no water until they dig for it.

Feb.19 2017 (Xinhua) -- Tanzania has launched a giant water project aimed at reducing competition between livestock and wildlife over few water sources available in the Ngorongoro Conservation Area Authority (NCAA)-UNESCO World Heritage Site.

Freddy Manongi, NCAA chief conservator, said the project, which will involve the construction of two major dams outside the world's largest unbroken caldera, will be a big relief to the sanctuary, and people living in the area located 169 km from the Tanzania's northern safari capital of Arusha. "This will give us (conservators) enough time to concentrate on the conservation of the sanctuary, compared to the current situation, whereby we're overwhelmed with the increasing number of livestock, which get into the Ngorongoro Crater as they look for water,"

Three years later, and nobody knows where this water project is.

# COMMUNITY DEVELOPMENT

In a situation where conservation of natural and cultural resources and tourism are fairly improving, while conditions of resident pastoralists are deteriorating, it is unlikely for MLUM to bring the desired outcomes that will benefit conservation and indigenous residents. The need for review of the model to better harness conservation, **community** and tourism **development was therefore imperative**.  
...(MLUM Oct 2019 xii)

This community development goal seems to be missing from the solutions given at the end of the MLUM report.

*Ore paa pee iteruni korongoro naa ibaa uni ipirita pee iendeleza iltalii, hifadhi aa korongoro oloopeny engop, netipika korongoro ilopeny engop bata naleng.* [Maa]

NCA was created with three objectives to promote conservation, tourism and indigenous development but local development is set aside. ...(Survey participant #SKA)

## DEVELOPMENT NEEDED

### Empty Promises - Development?

Education, health services for both people and livestock, transport and infrastructure are far below national averages (2004) <sup>82</sup>

This is what the Maasai were supposed to get, as a matter of their rights.

Ngorongoro was established as a multiple-use area, to be managed for both people and wildlife, in the 1959 agreement between the government and the Maasai that established Serengeti National Park. According to this agreement, **it was clear that Ngorongoro would be managed for the development of the Maasai as compensation for the loss of Serengeti**. The governor of Tanganyika under the departing British administration famously declared at the time: **"Should there be any conflict between the interest of the game and the human inhabitants, those of the latter must take precedence"**. <sup>37</sup>

- In 1959, with the establishment of Serengeti National Park, the 4,000 Maasai who lived there were evicted and moved to the Ngorongoro Conservation Area.
- In 1975, the Maasai were forbidden to settle inside the Ngorongoro crater.<sup>3</sup>
- In 2006, the government told the Maasai communities living inside Ngorongoro - about 60,000 people, to leave by the end of the year.<sup>14</sup>
- In 2017, the Ngorongoro crater, Empakaai and Olmoti craters were closed to grazing.

The NCAA earns approximately TSh 6.5 billion per annum (equivalent to US \$8 million) from the tourist industry, of which 52,000 pastoralists are allocated 12% according to the budget but not in reality. Health and veterinary services are also lacking.<sup>64</sup> ..(MLUM 6.2 Social services)

Why was it 12% back when there were 52,000 pastoralists and only 3% now, when there are almost double the population?

A 1995 study found that in the previous three years, the NCAA had only constructed three grain stores, one cattle dip (in disrepair); built two water systems (one defunct, the other incomplete), a primary school and a dispensary. This is despite an estimated annual income of over US\$ 10 million from gate fees alone! These factors have combined to impoverish the Maasai residents to the point where about 50% of their households has less than 10 livestock units<sup>11</sup> per household - which is regarded as below the level of subsistence - with as many as 40% being considered destitute as they have fewer than two livestock units per household.<sup>88</sup>

In safeguarding the interests of the indigenous residents (maasai, datoga and hadzabe), the NCAA has continued to support the communities through provision of services such as, **education, health, water and veterinary service**. The NCAA, also provides food support at subsidized price to communities annually to complement their pastoral food shortage. (MULM Executive Summary)

Besides the recorded achievements, the local communities have had some reservations regarding their involvement in the decision making process on matters related to governance and management of NCA. (MULM Executive Summary)

Sadly lacking in education, health, water and veterinary service!!



Support from NCAA has not been able to cope with increasing demands on an increasing population trend, most likely due to high human population growth, effect of climate change and ecological stresses. Indigenous residents' socio-economic conditions have deteriorated due to food insecurity, water scarcity, income poverty, escalating human-wildlife conflicts, poor health and high illiteracy level. Increased human-wildlife conflicts are associated with increased interactions among people, wildlife and livestock. (MULM Executive Summary)

If development had been adequate in the past -- when promised -- we would not have seen such high population growth, which, by the way, is no higher than the surrounding rural communities.

The residents associate livestock mortality with inadequate grazing land caused by restrictions imposed by the Authority. For example, recent restrictions or bans to track livestock into the Ngorongoro Crater for salt lick and in Empakaai and Olmoti craters and Northern Highland Forest Reserve for dry season grazing. Other reasons cited include insufficient veterinary services, livestock depredation, deteriorating rangelands, particularly the invasion of both alien plant species and indigenous pioneer weeds. Overall, satellite images have shown extensive deterioration of vegetation particularly grasslands, shrubland, woodland and northern highland forest. (MULM Executive Summary)

Actions that are undertaken within NCA should aim at balancing the three management objectives, which MLUM was established to achieve namely the conservation of natural resources, promoting resident pastoralists' development and fostering the tourism sector. Planning and decision making towards the realization of this balance should **ensure active participation of NCA pastoralists with the aim of contributing to improved food security, high quality livelihoods, increased life expectancy and the ultimate reduction of abject poverty among NCA pastoralists** as well as increasing the contribution of the tourist industry to the country's Gross Domestic Product (GDP) thus accomplishing the three 2025 vision's targets. (MULM 4.3.1. The Tanzania Development Vision 2025)

"Active participation of NCA pastoralists" - This is where the NCAA is sadly lacking - the number of Maasai on your board has been zero for many years!

.... **Financial benefits from tourism activities shall accrue in part to the local community to motivate them in conservation of tourism resources.** It was revealed during the consultation process when undertaking this review that **some of the tourist projects in NCA in particular accommodation facilities were either established without close consultation with stakeholders particularly resident pastoralists or were developed in areas contrary to provisions of the area's GMP.** In view of that, any future management approach of NCA's MLUM should consider the limits of acceptable use as provided in the General Management Plan (GMP) for achieving a suitable balance of community development, natural and cultural resources and tourism development interests. (MLUM 4.3.2. National Environmental Policy (1997) )

## Another promise not kept!

An important provision in this policy relevant to the ideal MLUM for NCA states that ***“for the planning of development projects, the government shall ensure sustainable and profitable utilisation of natural resources for the benefit of rural people by involving local communities in the management and utilisation of these resources”*** (URT, 1996). The RDP focuses on four key issues namely, **promotion of widely shared economic growth, increasing opportunities and access to social and economic services, reducing risks and vulnerability** and enhancing good governance. One of the significant tactics to ensuring that benefits from living with wildlife is embraced will be **the provision of training to pastoralists on livestock husbandry and modern breeding practices so as to increase milk yield and fatten cattle for slaughtering within possible shortest time thus,** contribute to improving the livelihoods of this community, which largely depend on livestock production economy. Other important actions will include **involvement of resident pastoralists in the production of goods and services, promotion of small business, getting better communication facilities and roads as well as improvement of markets and rural marketing facilities.** (MLUM 4.3.4. National Rural Development Policy (1996) )

Based on the Policy, NCA interventions include;

- i. Involving rural communities and other stakeholders in taking joint responsibility for the sustainable management of wildlife and other natural resources;
- ii. Working in partnership with rural communities;
- iii. Enhancing the use of indigenous knowledge in the conservation and management of natural resources;
- iv. Continuing to control dangerous animal species as a matter of priority; and
- v. Devolving progressively the responsibility for problem animal control to rural communities, operating community based conservation schemes, and continuing to give assistance where rural communities have not developed this capacity. (MULM 4.3.5. National Wildlife Policy (2007) )

This policy statement has great implications to NCA where livestock production and natural resources are the major land uses, which need to be harmonized. In order to achieve that balance any approach to ensuring that MLUM remains sustainable, quality rather than quantity with regard to livestock production through cross-breeding the traditional zebu breed with improved races and ultimately having few livestock numbers of high productivity and profitability should be a prerequisite. (MLUM 4.3.9. National Livestock Policy (2010) )

The policy identifies the **danger of water scarcity**<sup>\*\*</sup> In a few years to come, by showing that, an annual average water availability per capita will decline by 45% from 2,700 cubic meters in 2002 to about 1,500 in 2021 (URT, 2002). This is in tandem with NCA, which faces acute scarcity of water both in quantity and quality, if MLUM is to be sustained, intensive survey of water availability in NCA to uphold the growing resident human and livestock population should be conducted. (MLUM 4.3.11. NationalWaterPolicy(2002) )

The National Health Policy envisions for a healthy community that contributes effectively to individual and nation development. The policy objectives include the need to reduce morbidity and mortality and increase life expectancy by **delivering better health services, which focus on requirements for vulnerable groups such as infants, under-fives, pre and school children, youths, people with disability, women of reproductive age and elderly people to access health services. In addition, the policy provides strategies to improve people's health physically, mentally and socially and their welfare through promotion, prevention and/or reduction of diseases, disabilities and deaths.** The policy is implemented in collaboration with the private sector, communities, Civil Society Organizations (CSOs), international organizations and development partners. (MLUM 4.3.16. NationalHealthPolicy(2007) )

The National Education and Training Policy emphasizes for Tanzania to have knowledge and worthwhile broad in depth modes of thought, skills, attitudes and understanding needed for the full development of the country. It ensures that people are aware of their own potentials and responsibility to change and improve their own conditions and that of the society. Also it embodies within it science and technology. In NCA where illiteracy rate was around 64% in 2017, the implementation of this Policy is of paramount importance, (MLUM 4.3.16. NationalHealthPolicy(2007) )

As part of international obligations, in 2015, the United Nations launched new sustainable development agenda [Sustainable Development Goals] to guide global actions for the next 15 years.

Specifically, the review of MLUM puts more emphasis on **Goal 1: No poverty; Goal 2: No hunger; Goal 3: Good health and well-being; Goal 4: Quality education; Goal 5: Gender equality; Goal 6: Clean water and sanitation;** and Goal 15: Sustainable management of forests, combating desertification, halting and reversing land degradation, and halting biodiversity loss. The goals give facts and figures regarding poverty, hunger, health, education, gender equality, water and sanitation and forests. For instance, Goal 15 clearly states that around 1.6 billion people depend on forests for their livelihood. This includes some 70 million indigenous people; NCA indigenous residents inclusive. (MLUM 4.4.1. The Sustainable Development Goals (2016-2030) )

Now this one has some promise! Can Tanzania somehow be held to this!

Article 13 of the Convention directs governments to **respect cultures and spiritual values of those people and their relationship with lands or territories or both as applicable**, which they occupy or otherwise use. Land in this Convention includes the concept of territories, which covers the total environment of the area that the people concerned occupy or otherwise use. Article 15 deals with **rights of indigenous people to natural resources pertaining to their lands including the right to participate in the use, management and conservation of the resources**. Article 20 directs governments within the framework of national laws and regulations and in co-operation with the people concerned, to adopt special measures and **ensure effective protection with regard to recruitment and conditions of employment of workers belonging to those people**. Because NCA belongs to a protected area where indigenous residents are dependent mainly on livestock production economy and thus bearing close relevancy to this Convention, **all important steps pertaining to how the area should be managed, must involve resident pastoralists**. (MLUM 4.4.10. International Labor Organization Convention (1991) )

The rights-based approach may be the way to go!

The situation in NCA indicates that both human and ecological conditions are deteriorating and, therefore, undermining the society well-being and sustainability of the area. The indicators of deteriorating human well-being in the area include **poverty (50%), hunger (70%), illiteracy (64%) and diseases**, among others (NBS 2017). Food insecurity to indigenous residents of NCA has resulted in poor health compared to Maasai residents of Loliondo Game Controlled Area (LGCA). In this study it was established that on average pastoral women in LGCA were slightly taller and weighed 3.5kg more than those in NCA (Table 2). Similarly, infants of 1.5 to 2 years of age of Loliondo GCA weighed more than those of NCA by at least 1.5kg and the difference was statistically significant ( $p < 0.001$ ). (MLUM page 5)

Why is it deteriorating!! Could it be because their rights were ignored?

Important actions, which were recommended for implementation in the 1996-2006 GMP; the first one to be approved for implementation and recommended again in the revised 2006-2016 GMP but are not yet implemented or have been partially realized include the natural resources management actions. In this aspect recommended actions but not adequately implemented include; ensuring that the human, livestock and wildlife populations have access to quality and **adequate water resources**, as well as developing measures to **maintain wildlife corridors** and sensitive habitats. Other actions are; developing a building code to preserve the natural scenery of NCA as well as putting in place measures to **prevent the introduction of exotic species** in the area. ...MLUM pg35  
4.5.2. General Management Plan (2006-2016)

A lot of the buildings belong to the non-Maasai staff and tourism company employees.

Additional actions include developing non-traditional income generating activities other than tourism, **ensuring sustainable food distribution** programmes and **providing reasonable level of price and special subsidies to the poor and destitute families**. More actions that were proposed but not adequately implemented are ensuring basic services such as **education, health and water supply** are provided, cooperating with indigenous residents to control permanent immigration and establishment of unplanned settlements, initiating and **implementing compensation schemes for NCA families willing to resettle outside the area voluntarily**. Also developing **birth control strategy** to control high human population growth as well as reducing the incidences of property damage and costs related to wildlife disturbance. ...MLUM pg35 4.5.2. General Management Plan (2006-2016)

### Good plan! Why haven't you done it?

In Feb. 2017, Edward Maura said that the reason for herders to bring their livestock into the crater is for pastures, water, and salt. Tanzania has launched a giant water project aimed at reducing competition between livestock and wildlife over few water sources available in the World Heritage Site. The project will involve the construction of two major dams outside the caldera. "We're overwhelmed with the increasing number of livestock, which get into the Ngorongoro Crater as they look for water," he said.<sup>57</sup>

Three years later, and nobody knows where this water project is. And the number of livestock are frozen because the craters are a no-go zone.

Down the line, the NCAA says, it plans to improve breeding methods for Maasai cattle, which, in "three or four years," said one official, will boost Masai revenues and allow them to purchase maize and other vegetables on the open market. But according to the Maasai, they have been hearing about such plans for years and nothing has come of them.<sup>79</sup>

With 140 billion we deserve to be supplied with NFRA maize for a price of 15000-18000 for a bag of 50kg for two households of 6-12 members?

Do we need to have kids walk to and from 7-14km a day to attend class 4 or 7? I mean they are lacking dormitories in school of which count only 25 or less in division?

Do our loved brothers and sisters deserve to leave their families to go to Karatu and Dar for security jobs and room in peoples farms in Karatu and Mbulu beg for maize??

Really yesterday I met mothers in Karatu. I think they were from Nainokanoka - pale, stricken with cold. They do not know where they sleep nor the point of tea in the morning. .... (Participant "O" WhatsApp)

The current NCAA law does not say do not develop, it says the NCAA should develop them, the current law does not say locals should not be employed because they will buy livestock, current laws do not say our entitlement is a poor life.

Multiple land use - underestimating the locals kills this fact. This is the only Ngorongoro value that needs to be balanced. Lissu says both domesticated and wild animals are all the same to be together, they have been so since the origin of man. .... (Participant "N" WhatsApp group NCA Concerns)

### **Multiple Land Use Model 5.2.8. Achievements and Lessons Learnt**

- i. From 2014 to 2017, NCAA spent 11.1 billion shillings for community development projects;
- ii. Through NPC education program, NCAA has sponsored 3,800 students at different levels
- iii. A total of 25 primary schools and two secondary schools have been built;
- iv. Provision of veterinary services to pastoral communities;
- v. Implementing school feeding program to enhance attendance in schools;
- vi. Facilitate establishment of 12 primary cooperative societies in to enhance food security and livestock production;
- vii. Construction of 28 dams and boreholes for water supply for people and livestock;
- viii. Support communities to health services;
- ix. Facilitate development of food security strategy to address food insecurity; and
- x. Provision of livestock extension and veterinary services to communities;

We have 24 primary schools in 25 villages irrespective of the number of primary schools one village has. 23 are government primary schools and 1 is a private primary school (Endulen).

Each of the primary schools acts as an umbrella in which one preprimary school is found.

In 11 wards and 25 villages we have 3 secondary schools and all are probably government schools.

There is no private secondary school in Ngorongoro division: Embarway (ordinary and Advanced level, Nainokanoka sec school, (O&A level) and the new Ngorongoro Girls sec school in Kakesio/Esere.

There is addition of 8 private preprimary schools under NGOs, to make to make a total of 11 preprimary schools.

Its true that many pupils are walking long distances with very harsh environments, especially during the rainy season where wild animals are found nearly everywhere along the way.

Shortage of teaching and learning facilities can be observed in many of our primary and sec schools. .... (Participant "O" WhatsApp)



NCAA receives \$4,800,000 USD - about 11,164,953,600 TZS

"3 billions used for education expenses from secondary to university. It is not direct sponsorship from NCAA. Maize were purchased by NPC." (NPC = Ngorongoro Council) (Participant "O" Whatsapp)

When asked "is \$3 billion fair?" participant "O" (Whatsapp) said: "Not at all. We would like to have at least 15 billions". We still need schools, health facilities, women's bags, clean water, livestock, network towers, partnership ... (Facebook Group participant)

#### 5.2.6. Alternative livelihood strategies

The NCA consists of households, which are located in very remote and difficult environment and majority of them are poor with estimated household size of 4.5 (NBS, 2017). The household livelihoods rely on livestock keeping and subsidized grain supplements from NCAA. Those without livestock and do not engage in other income generating activities like beekeeping, small businesses are destitute and account for 62.2% of all households in the NCA. Only 5.0% of all households in the area had at least one member partly engaged in tourism activities in 2017 (NBS, 2017). Although beekeeping was not readily mentioned as one of the alternative occupations among NCA pastoralists (Runyoro, 2007; NBS, 2017), it is currently undertaken by some members of the community particularly those residing in Ngoile, Nainokanoka and Meshili villages with support from NCAA and other stakeholders (Plate 7).



**Plate 7:** Women beekeeping group in NCA

...(MLUM 5.26 Alternatives)

These beekeepers from Nainokanoka never made a profit and could not pay off their loan for the large expense of buying these beehives and equipment. TAWIRI could have been more helpful.



# Community Residents Rate Development

## SOCIAL SERVICES INFRASTRUCTURE

*Lakini maeneo hayo yawekewe miundo mbinu kama shule na barabara.*

But these areas should be equipped with infrastructure like schools and roads. ...(Survey participant #GGO)

*Jengeni shule ambazo mnaweza kuziita Maasai Academy na uwapeleke watoto shule maana zitasaidia sana kupunguza idadi ya watu ndani ya hifadhi kama mnataka watu wapungue.*

Build schools that you can call Maasai Academy and send children to school because it will help to slower the population. ...(Survey participant #MKO)

*Kamati inapaswa kutatua matatizo ya wananchi hususani elimu,njaa na umaskin.*

The committee should solve the problems of the people especially education, hunger and poverty. ...(Survey participant #MKO)

*Wananchi wapewe elimu maana itapunguza watu na eneo la ncaa ni kubwa na linatosha.*

Citizens should be educated because it will reduce the population and the area is large and sufficient...(Survey participant #MKO)

*Nawaomba wananchi wenzangu tukubaliane na mapendekezo ya serikali maana ni mpango mzuir na unaolenga kuboresha maisha.*

I urge my fellow citizens to agree with the government's proposals because it is a viable initiative and aimed at improving lives. ...(Survey participant #MKO)

*Wenyeji wapatiwe 80% ya ajira za NCAA.*

Locals should be provided with 80% of jobs that will be announced by NCAA. ...(Survey participant #MMM)

*Wenyeji wapewe kipaumbele katika ajira za NCAA.*

Locals should be given priority in employment. ...(Survey participant #MMM)

*Wenyeji walipwe mishahara.*

Locals should be paid salaries. ...(Survey participant #NOK1)

*Tutafutiwe masoko ya kuuzia mifugo maana itasababisha mifugo kupungua kwani watu watauza mifugo kwa hiari yao.*

They should look for markets to sell livestock because they will reduce livestock as people will sell livestock voluntarily. ...(Survey participant #JNN)

*Nyoo ehetakini iyiok eranchi nekitasabukie ingishu pee etumoki ataa kunyik kake eeetaa tipat amu ipungusa enatoki ingishu openy.* [Maa]

They should build a ranch for fattening livestock so that they are smaller and more productive and this benefit will reduce livestock. ...(Survey participant #NSE)

# WILDLIFE

## Large Herbivore Population

**MLUM Table 6:**

Table 6: Population estimates for large herbivore in NCA in 1994 and 2017

| Functional Group            | Body Mass (Kg/Animal) | 1994 (Source: Boone 2002) |                |                | 2017 (Sources: * NBS 2017; **NCAA <sup>WS</sup> , 20 NCAA <sup>DS</sup> 2017;*** Boone et.al.2002) |                |                |
|-----------------------------|-----------------------|---------------------------|----------------|----------------|----------------------------------------------------------------------------------------------------|----------------|----------------|
|                             |                       | Number                    | LHUs (WS)      | LHUs (DS)      | Number                                                                                             | LHUs (WS)      | LHUs (DS)      |
| Cattle                      | 180                   | 115,468                   | 83,137         | 83,137         | 238,826*                                                                                           | 171,955        | 167,616        |
| Goats and Sheep             | 18                    | 193,000                   | 13,896         | 13,986         | 570, 633*                                                                                          | 41,086         | 41,086         |
| Migratory Wildebeest        | 123                   | 625,000                   | 307,500        | 0              | 625,000****                                                                                        | 307,500        | 0              |
| Migratory Zebra             | 200                   | 62,959                    | 50,567         | 0              | 62,959****                                                                                         | 50,567         | 0              |
| Migratory grazing antelopes | 15                    | 150,000                   | 9,000          | 0              | 150,000****                                                                                        | 9,000          | 0              |
| Resident Wildebeest         | 123                   | 9,000                     | 4,428          | 4,428          | 9,575**                                                                                            | 4,710          | 4,710          |
| Resident Zebra              | 200                   | 7,087                     | 5,670          | 5,670          | 4,027**                                                                                            | 3,258          | 3,258          |
| Resident Grazing Antelopes  | 30                    | 13,600                    | 1,632          | 1,632          | 13,600****                                                                                         | 1,632          | 1,632          |
| Buffalo                     | 450                   | 3,150                     | 5,670          | 5,670          | 2836****                                                                                           | 5,105          | 5,105          |
| Browsing Antelopes          | 40                    | 2,654                     | 425            | 425            | 2,654****                                                                                          | 425            | 425            |
| Elephant                    | 1,725                 | 300                       | 2,070          | 2,070          | 300****                                                                                            | 2,070          | 2,070          |
| Rhinoceros                  | 816                   | 15                        | 49             | 49             | 59*****                                                                                            | 193            | 193            |
| Giraffe                     | 750                   | 1,666                     | 4,998          | 4,998          | 1,666****                                                                                          | 4,998          | 4,998          |
| Warthog                     | 45                    | 250                       | 45             | 45             | 250****                                                                                            | 45             | 45             |
| <b>TOTAL</b>                | --                    | --                        | <b>488,886</b> | <b>122,110</b> |                                                                                                    | <b>602,544</b> | <b>235,477</b> |

Note: One Large Herbivore Unit (LHU) = 250Kg; WS = Wet season; DS = Dry season

\*\*\*\* Boone et al, 2002 (Assumption that populations have remained as they were in 1994)

There is something strange about this chart (above):

1. Looking at the wet season (WS) for the Migratory Wildebeest, you will see that the number for 1994 LHU is identical to 2017 LHU. This is true for 5 other kinds of wildlife.
2. For the dry season (DS) there are 5 different kinds of wildlife where the LHU number is identical between the two years!!!

3. The number of LHUs did not change between the wet season and dry season for 8 different kinds of wildlife.

4. From 1994 to 2017, wildebeest and rhinoceros LHUs increased in the Dry Season.

5. 2017 was a drought year: therefore it is no surprise that there was a drop in zebra and buffalo LHUs in the Dry season between 1994 and 2017. Also was the 2017 count before or after the drought?

*Mekiyeu nidurieki iyiok inguliek wojitin nemekuna amu iyiok otoripo kulo owarak.* [Maa]

We do not want to be relocated when we are the ones who have protected these animals.

...(Survey participant #NNA)

6. LHU may be a faulty way of measuring the impact of a herbivore. The pattern of transhumant moving livestock from one area to another, depending on the condition of the rangeland forage, could make a big difference. Maasai have been restricted from following their ancestral transhumant grazing patterns. Wildlife have no such restrictions and therefore can cause more damage to fragile rangeland, per LHU, , if there is no guidance from herdsman.

7. Shall we attribute the deterioration of the rangeland to the 280,000 livestock or to the 2 million wild herbivores, or to the fact that traditional livestock grazing patterns could not be followed?

The population of Ngorongoro community grows slowly compared to the population of wild animals...

Nowadays it's totally different because the area covered by wild animals in Ngorongoro is bigger than the pastoralist activities that take place. (Participant "O" WhatsApp)

## Wildlife Population

The NCA contains over 25,000 large animals including 26 black rhinoceros. There are 7,000 wildebeests, 4,000 zebras, 3,000 eland and 3,000 Grant's and Thomson's gazelles. The crater also has the densest known population of lions, numbering 62. In the rainforests of the crater rim, are leopards, about 30 large elephants, mountain reedbuck and more than 4,000 buffalos, spotted hyenas, jackals, rare wild dogs, cheetahs, and other felines.

The annual migration of 1.7 million wildebeest, 260,000 zebra, and 470,000 gazelles also passes through the NCA, when the 1.7 million ungulates move south into the area in December then move out heading north in June. Over 500 species of bird have been recorded within the NCA. These include ostrich, white pelican, and greater and lesser flamingo on Lake Magadi within the crater, Lake Ndutu, and in the Empakaai Crater Lake, where a vast bird population can be observed.<sup>67</sup> (2020)

Between 1964 and 1975 several partial evictions of the Maasai from range lands continuously deprived the NCA of its best forage and feed value and pastoral range management mechanisms. There is an alarming **increase in low quality, high fibre grass species** in the NCA, which has coincided significantly with the **increase in certain animal species e.g. the wildebeest population**, which has reached about **1.7 million** over the last two decades. These changes have not only disturbed the pastoral transhumance practices but also generated much scientific speculation as to the real carrying capacity in terms of available resources. However, there has been no serious intention or attempt to carry out specific scientific studies geared at understanding these trends.<sup>64</sup> 7.2.1 Wildlife population trends

Although the Maasai, as a rule, do not kill wildlife for food; they have nevertheless, used it as a 'second cattle' to see them through years of terrible disasters such as drought or outbreak of diseases when their herds were depleted. The reliance on this 'second cattle' helps to explain the traditional Maasai tolerance of wildlife to this day. It is this tolerance for wildlife which was lacking in other cultures which explains the existence of high concentrations of the plains herbivores and their predators in Maasailand and other pastoral lands in East Africa.<sup>88</sup>

The population of animal in Ngorongoro increases more compare to other PAs ....This is enough evidence for people who visit there ...For instance look at the population of Rhino compared to previous years with numbers of rhino found in Ngorongoro crater nowadays....How does population of local community hinder conservation ??

Compare wild animal in Ngorongoro Conservation Area with other places... Animals are in Ngorongoro around the community settlement and in the forest living friendly with people , the herbivore like zebra during the night ,early in the morning and late evening must go near Maasai bomas for their safety. ...And this everyone know. ..So how did Maasai become enemies of wild animal while they protect them during harsh and normal time???? In other areas with people - no animals are around.

They say that "poaching is another point", but go Serengeti and other places adjacent the park animal are alert every time because sometime they may be poached, but in Ngorongoro, we live with animal in the same like our cattle - this show that [there is] no poaching activities in Ngorongoro especially within our areas ...(Participant "ND" (June 26-2020 whatsapp NCA Concerns group))

## Poaching

In 1995, the head of a special unit of game wardens who were detailed to guard NCA's few remaining rhinos against poachers was Steve Makacha. This unit is heavily armed and equipped with advanced detection gear and vehicles, and is on duty round the clock. Amid this tight security, a rhino affectionately nicknamed 'Amina' was killed by poachers in 1995. This was not discovered until three days later; and it was not the special guard unit but some German tourists who stumbled onto Amina lying dead with her horns gone!

An investigation showed that during the week preceding the poaching, some wardens of the special unit had inexplicably been given guard duties outside the Crater. Others were given a temporary three-day leave of absence and were told to go to Mto wa Mbu township, some 50 kilometers away. All the vehicles used in the rhino guard were taken from the guard unit inside the Crater - Makacha personally took one vehicle which overturned on his way from the Crater! All this was done by none other than Makacha himself. He signed the log books for the transfer of the vehicles, and for the guards' leave of absence. Makacha and four other wardens were arrested and charged with economic crimes (poaching of specified animals).

## Optimal Stocking Capacity; Carrying Capacity

Statistical prediction in a scenario where it was assumed that optimal stocking capacity of the area will remain 250,925 Large Herbivore Units (LHUs) as was estimated in 1994 (Boone *et. al.*, 2002). livestock allowed to increase unabated at the 2017 growth rate, large herbivore numbers and distribution remain the same as they were in 1994 and total NCA land area remains 810,000ha as was determined in 2006, the optimal stocking rate (**carrying capacity** for both livestock and wild herbivores) for NCA was estimated to be 250,925 LHUs, by 2017 total LHUs accounted for by wild herbivores should have declined 21,970, which is equivalent to about 20,000 wildebeest and 15,000 zebra only in both wet and dry seasons. However, this was not the case because wild herbivores contributed 389,503 and 22,436 to total LHUs for both wild and domestic herbivores in wet and dry seasons respectively. This means that (excluding donkeys and camels), the dry season carrying capacity for NCA was exceeded by 366 LHUs, which could have been the reason for massive livestock deaths during that year. ...MLUM pg 68 5.2.2. Tropical Livestock Unit

This logic is flawed because livestock were excluded from the three craters in 2017. Also 2017 was a drought year. And nothing is clear - if the carrying capacity was exceeded by 366 LHUs, then the carrying capacity is really  $389,530 + 22,436$ . In other words, it is what it is. Using the concept of carrying capacity is flawed because conditions are highly variable. It can be one number one year and another number another year. If you set the livestock carrying capacity low for a year like 2017, and don't change it for a good year, then the carrying capacity number of cattle will be too low. Except for some really dry years, the Olmoti spring runs all of the time even in times of drought ... and, for some reason, few wildlife go into the Olmoti crater, so the carrying capacity for cattle for that crater could be much higher if the cattle were allowed. The other variable is that water is not the only requirement. Water at the right time and in the right place for grass growing is also critical for good nourishment. In addition, if the area -- where the unpalatable tussock grass grows -- were burned, that would improve cattle survival and raise the carrying capacity.

### Carrying Capacity

The concept of carrying capacity 'cramps our understanding' of ecological systems by way of its emphasis on their long-term means rather than on their variability.<sup>82</sup>

Shepherd and Caughley (1987) argued strongly that much of the fluctuations in rainfall occur unpredictably, hence, carrying capacity theory, which was developed for stable temperate and tropical areas, is invalid and has no relevance. McLeod (1997) agreed that its use was questionable for variable environments.<sup>85</sup>

In arid and semi-arid areas, the rainfall and of primary production variability is such that the concept of carrying capacity derived from their long-term means is not useful. "Carrying capacity" leads one to think that reducing a herbivore population must mean a healthier population and a healthier environment. When herbivore populations are culled, surviving individuals may grow larger, suffer lower natural mortality, and show higher fecundity, the system tends to lose resilience and becomes more vulnerable (Shepherd and Caughley 1987). And also it is no longer 'wild'.<sup>82</sup>

Multiple Land Use documents and UNESCO, when talking about Carrying Capacity and Population, seem to forget about the fact that population is only one part of the equation. The other part is 'footprint' - the size of the impact for each person. Maasai people have very small 'footprints', especially compared to a person with a car, or one who rides a daily bus.

While a Maasai house has a small footprint, the distribution of Maasai houses on the land has nothing to do with footprint - it has more to do with satisfying imaginations of privileged tourists.

The carrying capacity is artificially based on how many people can sustain their lives depending only on cattle, while the number of cattle is artificially constrained by how many herbivores the model says the rangelands can sustain. It is also constrained because some tourists complain about the cattle in the crater.

Sustainability also is determined by tourist impacts. Frightened animals may go out of the crater. Lodges and camps have been known to plant invasive weeds, build without permits, dump wastewater on the ground, and use up water to fill swimming pools, taking away water that Maasai need for their cattle.

Many variables are left out of this equation: Maasai don't always rely only on cattle. They have for many years, also relied on cultivation. The number of herbivores today include millions of wildebeest who also use NCA natural resources. This wasn't true years ago when the Masai were forced to give up the Serengeti and move to the NCA. These wildebeest use up more than their fair share of the rangeland resources. They also have a disease deadly to cattle, making large parts of the rangelands unavailable to cattle. The amount of resources that the wildebeest consume, also lowers the chance of survival for rare antelopes.

Maasai sometimes end up without cattle, but that does not necessarily mean the end of their sustainability. They have been known to settle with cultivator groups, often as a temporary measure to build up the capital to acquire new stock (Berntsen 1979), though these days destitute Maasai are more likely to seek wage labour in the townships.<sup>82</sup>



## POPULATION

**Human population is mentioned 50 times** in the MLUM document. It sounds like the author is trying to justify evicting people, using population as a reason.

*“xiii. Analysis of **maintaining the status quo** revealed that with an average annual growth rate of 3.5%, **human population will reach 200,000 people by 2038.**” ... MLUM*

And in the Ladislaus F. Batinoluho document:

### Increased human population

According to the National Bureau of Statistics (2017), the population of indigenous residents is 93,136. **If the number of people continues to increase unabated**, the population is expected to double and reach about 200,000 by 2032. This means that the well-being of the people in the area will worsen further and **fail to sustain their existence** as established by the national and global standards of human welfare. In the face where conservation of natural and cultural resources as well as tourism promotion seem to fairly succeed while the condition of resident pastoralists' deteriorates, demonstrates that **the multiple land use model that has existed for 60 years can no longer be upheld without making adjustments in its current status**. Otherwise, **individuals or groups without goodwill to the NCA will take advantage of the deteriorating state of resident pastoralists' wellbeing to obtain unfair sympathy as well as financial and political gains.**<sup>60</sup>

Changes in the status quo need to be considered before this claim can be made. Humane measures - that are already being done, to some degree - which lower population growth -- need to be considered first. Failure to provide adequate social services should not be blamed on the indigenous community. These same measures, if they were sufficient, would contribute to the well-being of the residents, as well as to lower population growth.

In addition, 40% of the resident population are immigrants, not indigenous, and 15% are non-Maasai staff, making the NCA Maasai population only 45% of 100,000 or 45,000.

There has been pressure for years against overpopulation from UNESCO for the NCA to maintain the World Heritage Site designation:

The World Heritage Centre and IUCN consider that the impacts of **human population pressure and tourism** need to be addressed **urgently**. If current degradation patterns are not stopped, the OUV\* of the property will be jeopardized and the World Heritage Committee may have to consider the inscription of the property on the List of World Heritage in Danger. .. 2010.<sup>18</sup>

\*OUV = Outstanding Universal Value = "Cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole."

What a wonderful thing is the Outstanding Universal Value! So inspiring! Something we wish for all humanity! It describes the Maasai culture so well. But when it is used by the NCA Authority as a reason to remove the Maasai from their home, especially when the development needed (such as health, education, nourishment, and control over one's own environment) - to curtail population growth -- then the reason for removing them is miserably insufficient.

Maasai population growth is 2.8% - slower than the Tanzanian population growth rate or the 4% cited for cultivators (1987).<sup>82</sup>

From **1980 to 2010** UNESCO reports concluded that the increase of the human population posed a threat to the ecological value and integrity of NCA as a WHS (Olenasha, 2014; UNESCO, 2009; WHC, ICOMOS and IUCN, 2012).<sup>2</sup>

For 40 years UNESCO has been predicting this threat! Have you ever heard of "calling wolf?"

*March 2019 UNESCO: 4.2.3.1 Sustainable livelihoods and Sustainability in the NCA*

While commending the State Party for actively and 1. **consistently supporting the Maasai with financial capital and other subsidies for their livelihood needs**, this model appears to have a sustainability risk, which cannot be guaranteed with the 2. **increasing population and the expansion of new settlements which require additional supportive infrastructure such as clinics and schools**.

This matter requires NCAA and the local communities to 3. **explore alternative sustainable socio-economic beneficiation models**, in addition to 4. **encouraging voluntary resettlement of Maasai outside the property**, consistent with the policies of the Convention and relevant

international norms, in order to reduce the risk of failure of the current model, hence deepening tensions and areas of conflict.

If this risk/threat is not addressed, it may result in the unintended consequences of a dependency syndrome on the part of the local communities, thereby suppressing the spirit of creativity and sustainable entrepreneurship (NCA Livestock Strategy, 2019). 5. **Such alternative models should consider that change has been constant and inevitable since 1959**, hence the need to have an inclusive stakeholder and holistically driven approach responding to these changes with a view of retaining the balance between conservation and socio-economic livelihoods.

If this matter is not addressed in a holistic and inclusive manner, it increases threats to the site and could be catastrophic if not proactively dealt with. However, this holistic and inclusive approach should be sensitive to the political context of this matter, and the 6. **need to assist the State Party in resolving such matters in a harmonious way.**

Joint WHC-ICOMOS-IUCN Mission to Ngorongoro Conservation Area.pdf page 31.

1. Consistently supporting the Maasai with financial capital and other subsidies for their livelihood needs - The NCA took over the Maasai Land; they owe the Maasai for having to share their land with tourists.
2. Expansion of new settlements which require additional supportive infrastructure such as clinics and schools - they would not have had to expand if they had sufficient clinics and schools to begin with.
3. Explore alternative sustainable socio-economic beneficiation models - their way of life was sustainable until they were confined in a smaller area by the NCA. In addition, they should be benefiting from tourism because they were forced to give up the Crater to please tourists.
4. Encouraging voluntary resettlement of Maasai outside the property - Resettlement before was a failure. Most good places are already taken by game ranches or agriculture. Agriculture people and pastoral people have conflicting livelihoods.
5. Such alternative models should consider that change has been constant and inevitable since 1959 - Change could have been better or worse, depending on the NCAA, not on the Maasai who were disenfranchised.
6. Need to assist the State Party in resolving such matters in a harmonious way. - The only way that this can be harmonious is to start listening to the voice of the Maasai, not just the NCAA.

#### *June 2019 UNESCO: 4.2.6.1 Increased human population within NCA*

The State Party, in consultation with the local communities, has developed strategies and measures to **control the human population growth** in and around the property. The mission recommends that the State Party should continue to (i) promote and encourage **voluntary resettlement** of communities, consistent with the policies of the Convention and relevant international norms, from within the property to outside by 2028; (ii) **promote family planning and reproductive health to the community to control birth rate and family size** in the property with the aim to decrease population by 2028; and (iii) collaborate with the local community and village governments adjacent to NCA in controlling migration of people into the NCA by 2028.

In addition, the restriction of grazing at Ngorongoro, Empakai and Olmoti craters, has limited the total grazing areas available to pastoralists who are **now forced to concentrate into few areas that are dominated by noxious weeds including the Eleusine jaegeri (Makutiya)**. Understanding that livestock define and provide social identity and security for the Maasai (Hesse and MacGregor, 2006), there is a need to consider the impact of climate change on the landscape and its implication on both livestock and wildlife, access to water and other resources, which may become scarce. Addressing the grazing pressure is already embedded in the three strategies previously agreed upon between the State Party and stakeholders concerned. While diseases and frequent droughts due to climate change have remained a challenge (GMP 2019), the State Party has collaboratively made a number of interventions targeting livestock improvement within the property in the past decades.

Joint WHC-ICOMOS-IUCN Mission to Ngorongoro Conservation Area.pdf page 33.

1. Promoting family planning is good, but it won't work to slow population growth without health care and girls education, which means more classrooms and teachers houses are needed (i.e. more development). See [population solutions](#), [infant mortality](#), [education](#), [health care](#), and [gender equity](#) in this document.
2. Voluntary resettlement has been tried before, but there was conflict with people who were already living there. And conflict frequently happens when pastoralists and agriculturalists live next door to each other.
3. Not enough has been done about noxious weeds, especially burning, which the Maasai used to do to improve the rangeland. This will increase the palatable rangeland for both the cattle and wildlife.
4. Not mentioned is cultivation. The Savanna model has shown that when 3% or less of land is cultivated, wildlife are not affected. This would end the dependence of the residents on the NCAA for sustenance.

Well known are the factors behind controlling population growth: quality health care, lowering infant and maternal mortality, girls education through secondary school, changing gender and family size norms, and rising out of abject poverty. In addition, such investments in these factors have been shown to improve well-being of the community and the economy of the region.<sup>26</sup>

This is why the population is so high: These things should have been done 19 years ago:

(2001) Despite the fact that NCAA gets a lot of revenue from tourism, only a very small part is used for the development of the Maasai. The NCAA earns approximately TSh 6.5 billion per annum (equivalent to US \$8 million) from the tourist industry, of which 52,000 pastoralists are allocated 12% according to the budget but not in reality. **Health and veterinary services** are also lacking. A single TB centre in Endulen and a few scattered dispensaries, without drugs or specialised doctors, serve the pastoralists. **When it comes to education the situation is no better.** Only a few primary schools are in place and most have no teachers or teaching materials. **Only now is a secondary school being constructed and nobody knows when it will get finished.** There are only two university graduates against a population of 52,000. The roads that are constructed are mostly those used by tourists. The district that the NCA is located in is the **least developed in Tanzania**.<sup>64</sup>

...6.2 Social services .. Case Study 4 Tanzania

The NCAA currently earns **140 billions** of which **3 billion** goes for the community for development and social issues financing ...(Participant "O" WhatsApp)

The NCA is home to roughly 90,000 Maasai people and one million diverse species of fauna and flora.<sup>2</sup> Meanwhile, their livestock, which is their main livelihood, have remained almost constant – resulting in fewer livestock per capita. While a few herders own massive herds, the vast majority of the families live well below poverty levels, and under increasing need for outside food and livelihood support.<sup>10</sup> In addition, in its 2005–2016 performance report, the NCAA noted the status of wildlife to be stable; the forest has remained intact.<sup>2</sup>

## The Sustainability of African Savannas

From the early 1900s people questioned the sustainability of the African savannas in regards to wildlife, livestock and the people who depended on them.

It was assumed that the pastoral people's attachment to cattle was **irrational** because they saw livestock as a form of wealth and strived to maximize livestock numbers resulting in a perceived degradation of the range conditions. Melville Herskovits, in his 1926 paper, called this the "**cattle complex**". It was assumed that pastoral people overstocked the range, and that it wasn't sustainable unless the number of livestock were checked. All development programs included efforts to force a reduction of the number of livestock of the people who were the intended beneficiaries of the project.

Garret Hardin in his 1968 article on the "**The Tragedy of the Commons**," claimed that individual ownership coupled with communal management of resources would lead to over exploitation

due to **environmental degradation**. This argument claimed that the pastoral system was “**unsustainable**”.

However, this sustainability concept is overly-simplistic.

In contrast to the Malthus theory that claims when the food supply reaches exhaustion, extra people have to die, a woman Danish economist named **Ester Boserup** argued that if a population was increasing, and land was limited, the people would just intensify their cultivation (adding labor for example). They will invent their way out of the **Malthusian** crisis.<sup>70</sup>

Malthus was talking about the potential for a population to run up against environmental limits. Boserup is talking about overcoming those limits through culture and technology.

Subsistence systems based primarily on nomadic livestock herding have given way during the last 40 years to more diversified economies incorporating cultivation, wage labor, and migration. Sustainability should no longer be in question.

Terms like “**carrying capacity**” assume a fixed number to mean things will crash if that number is exceeded.

The rangelands are non **equilibrium ecosystems** - meaning they have no equilibrium in their carrying capacity.

When herbivore numbers periodically crash, their numbers fall below the number of the previously-defined carrying capacity.

That is why carrying capacity is not solidly defined.

These herbivore crashes means each generation of the NCA Maasai becomes progressively poorer unless other sources of food or income are adopted into the livelihood strategy. This alone should provide a very strong incentive to diversify a livestock-based livelihood.<sup>68</sup>

93000 is the Total population of Native maasai and other people. This includes NCAA work persons, camps and lodge workers, dispensary and other persons doing both casual and permanent jobs, like teachers, who were to be counted during census and even on National Household Base survey that was conducted by National Bureau of Statistics(NBS) in 2017 which showed that there is high population increase. NCAA has a number of 700 to 1000 work persons from the office of Secretary-Chief Conservator of which, the Maasai account for only 70.... (Participant “O” NCA Concerns WhatsApp group)

*Nyoo pee iyeu nipungusasa iltunganak endai ilaasak lemamlaka ooyengingate neleku tiatu korongoro.* [Maa]

Also if you want to reduce the numbers of people then remove the retired authority staffs that are when retired they remain in the NCA. ...(Survey participant #NSE)

Also counted in the 93,000 were the men who left the NCA to find work, and the students attending secondary school and universities most of the year outside the NCA. There are also a number of people who were counted and who work for NGOs but live outside the NCA (in modern housing). If their spouses and children were also counted, that would add up to a big difference.

Also consider that, if the NCA replaced the 630+ NCA employees who are not Maasai, with Maasai employees, wouldn't those Maasai employees be able to live like the former 630 employees live - in modern houses? For many it would be the same employee houses that are already there, or they would be outside the NCA. Don't Maasai deserve to live in houses like that? There would be 630 people (plus their family household members) less in the NCA, and no difference in the number of houses.

If Maasai were treated fairly, and education was sufficient, you would see many more Maasai living in modern houses, either outside the NCA or inside (just like NCA employees do now).

In the NCA, the number of people is not what is contributing to the degradation of the property. Degradation is made by people with large 'footprints' tourism, wild and domestic animals, and failure to burn unpalatable grasses. But the cattle numbers have stopped growing, due to restrictions. Wildlife numbers are stable, and the "footprint" of the Maasai is small (you will see in the following section) so the value of the "property" is still the same.

The country of Tanzania has sustained relatively high growth, averaging 6–7 percent a year, over the past decade. At the same time, the East African nation of 55 million people already has one of the world's highest birth rates - around 5 children per woman.<sup>22</sup> These numbers of people are putting pressure on the park property from the outside.

In 2019, the fertility rate for Tanzania was 4.8 births per woman.<sup>53</sup> Rural women have, on average, 3 more births than their urban counterparts (2005).

Tanzanian President John Magufuli has urged women to stop taking birth control pills... because the country needs more people. "I know that those who like to block ovaries will complain about my remarks. Set your ovaries free, let them block theirs."

Tanzania's population is projected to grow to 100 million<sup>23</sup> by 2038 and by 378% by 2100.<sup>24</sup>

*Biblia imeandika nendeni mkazae mkaijaze dunia, sisi ni nani tusirotakiwa kuzaa?*

The Bible says go and be fruitful and fill the earth, who are we not to be fruitful?. ...(Survey participant #MSN)

Why are we restricted from giving birth while increase is happening in the other places in Tanzania? ...(Survey participant #EOE)



“The government of Tanzania simply does not have the capacity nor can it afford to support 100 million citizens. Resources for supporting such population growth in terms of health, education, housing, jobs, food, water, and security do not match the growth Tanzania is facing. In certain areas, the resources aren't even enough for the current population.”<sup>47</sup>

This growing population will force Tanzania to make a choice: improve the lives of the people by making wildlife preserves smaller, so more crops can be grown, or let more people fall more deeply into poverty. Benefiting from tourism is a strong incentive; this strongly suggests that the choice will be to keep wildlife preserves free of pastoral people. However, if it can be shown that wildlife and Maasai people can live together, the best choice may be to let the tourists get used to it, and forget about following the too demanding qualifications of being a World Heritage Site.

In 2007 the United Nations recommended that “the NCAA determine a so-called “human use carrying capacity” (the maximum number of people who can live in the area without degrading the environment) and moving inhabitants out on a voluntary basis to ease the strain on wildlife”. Following that, a controversial study by the International Livestock Research Institute and the Colorado State University “led the Tanzanian government to propose relocating 40,000 Maasai who currently live in the zone”, to reduce the population to 25,000 people.<sup>79</sup>

## Humane Population Solutions

Population would not be such a big problem if the Government and the NCAA had provided sufficient Education, Nutrition and Health care.

In Tanzania, 26% of girls aged 15-19 are pregnant or have already had children.<sup>48</sup>

The difference between a woman with no years of schooling and with 12 years of schooling is almost four to five children per woman.<sup>48</sup>

Unfortunately the NCAA/government has not built nearly enough classrooms. Classrooms and teachers are needed for -- at least -- about 30,000 more children. Many, if not most, of the classrooms were funded by NGOs.

Projects from the Tanzanian Government such as SEDEP or PEDEP, for constructing educational facilities, or LGCDP and PHSDP/MMAM, for health facilities, have been developed in the last decade and will probably have an effect in reducing the demographic pressure on resources. While



the population of the NCA area, which is the Ngorongoro Division of the district is currently 100,000 people, the whole district population is 200,000 (The district is divided into three *divisions*: Ngorongoro; Loliondo; Sale.). This means 50% of the population resides in each part of the district.<sup>10</sup>

Looking at the 2014 primary education enrollment we see the Ngorongoro Division has 40,372 students, and the Loliondo Division has 33,292 and Sale Division has 36,388. This means that only 36.68% of the primary education students are in the Ngorongoro Division, and that **about 30,000 more should be enrolled in Ngorongoro if Ngorongoro Division was to keep pace with the schooling rate of the rest of the district.** Keeping with current education trends means the NCA will continue to have problems regarding high fertility rates and high pressure on natural resources.<sup>10</sup>

Improvements that will lower fertility rate: education, health care, family planning, birth spacing, nutrition, lowering infant mortality rate, reducing poverty, ending child marriage.

The population growth is not only grown in Ngorongoro or any Maasai Land; it's all over the country. Why? it's because poor Education when you look at educated family you can see how they are practicing Family Planning but our community is with no Education - it's a challenge (Participant M Whatsapp)

## Tragedy of the Commons

The Maasai of Ngorongoro are victims of the 'Tragedy of the Commons' theory of the 1960s-1970s.

The tragedy of the commons is a "situation in a shared-resource system where individual users, acting independently according to their own self-interest, behave contrary to the common good of all users by depleting or spoiling the shared resource through their collective action."<sup>28</sup> An common example of the Tragedy of the Commons is herders sharing a common parcel of land, which, it is assumed, would lead to overgrazing.<sup>27</sup> The theory began in an 1833 essay, but in 1968, Garret Hardin, an ecologist, applied his version of the theory in an essay called "The Tragedy of the Commons" which applied to human population growth.<sup>27</sup>

Of Garret Hardin, a blog in April 2019 Scientific American magazine said "The man who wrote one of environmentalism's most-cited essays was a racist, eugenicist, nativist, [white nationalist] and Islamophobe—plus his argument was wrong." And: "Hardin believed the rich should throw poor people overboard to keep their boat above water."<sup>29</sup>

Implicit in Hardin's theory was that we must abandon the "Commons" system in breeding. People must no longer be free to add unlimited numbers of offspring to the total load on the earth's ecosystems.<sup>27</sup>

The over-simplistic theory of the Garret's Tragedy of the Commons disregards the size of people's ecological footprints, overlooks the real solution to overpopulation, instead blames people for having too many babies, and prevents them from using resources in the "commons".

These things are implicit in the Garret's Tragedy of the Commons theory:

- Biophysical limits dictate we must stabilize population.
- The more people there are, the less each person's share will be.
- Individuals in a commons will seek to maximize their own gains.
- People who have more babies are leaving less of the Commons for others.
- The Commons is a system of welfare that insulates individuals from bearing the full costs of over-reproducing.
- When every individual believes and behaves in this manner, commons are quickly filled, degraded, and ruined.
- Letting individuals choose as they like will destroy the Commons.
- The individual "right" to determine the size of one's family must be rescinded.

Elinor Ostrom, a political scientist who won the 2009 Nobel Memorial Prize in Economic Sciences for her work on the commons, found that locals have often come up with solutions to the commons problem themselves. For example, a commons in the Swiss Alps has been run by a collective of farmers to everyone's benefit since 1517, in spite of the farmers also having access to their own farmland. The users of a commons want to keep it functioning and so they invent complex social schemes for maintaining them at optimum efficiency.<sup>30</sup>

Ostrom's work was based on the principle that common resources are well managed by those communities that benefit the most from them and that their regulation should be addressed at the local level, through the farmers, communities, local authorities and NGOs.<sup>31</sup>

Douglas L. Johnson, a geographer who specialized in nomadic pastoralist societies of Africa and the Middle East said nomads had management practices that avoided excess concentrations of people and animals, rotated grazing pressure seasonally between major pasture zones, protected dry season resources that were critical to their survival, and limited access to pastoral resources. He said their ethno-scientific wisdom should be used as a basis for development, so as to protect zones critical to the survival of pastoralists, retain mobility and flexibility in contemporary pastoral systems, and strengthen common property systems developed by nomadic pastoralists. This would halt land degradation in dryland rangelands, he said. The nomads "balanced local stocking ratios against seasonal rangeland conditions in ways that were ecologically sound", reflecting a desire for lower risk rather than higher profit.<sup>32</sup>

By retaining mobility and flexibility in contemporary pastoral systems, and strengthening common property systems developed by nomadic pastoralists, land degradation in dryland rangelands can be halted.<sup>32</sup>

Hardin's Tragedy of the Commons influenced population and conservation policies for many years. And there are still people who embrace his theories today.

In 1994, The Cairo Conference on Population and Development developed a Programme of Action which was adopted by 179 governments. This new program would demonstrate that enhancing individual health and rights will ultimately lower fertility and slow population growth.<sup>33</sup>

A feature of this "Programme of Action" is the recommendation to provide comprehensive reproductive health care, (includes family planning); safe pregnancy and delivery services; abortion where legal; prevention and treatment of sexually transmitted infections (including HIV/AIDS); information and counseling on sexuality; and elimination of harmful practices against women (such as genital cutting and forced marriage).<sup>33</sup>

The Cairo Program of Action said that reproductive health care should enhance individual rights, including the "right to decide freely and responsibly" the number and spacing of one's children, and the right to a "satisfying and safe sex life."<sup>33</sup>

Most organizations that feature reduction of population growth, or reproductive health, or women's rights follow this Programme of Action.

Reverend Martin Luther King Jr., legendary civil rights leader in the US, said in 1966:

"Unlike plagues of the dark ages or contemporary diseases we do not yet understand, the modern plague of overpopulation is soluble by means we have discovered and with resources we possess," he wrote. "What is lacking is not sufficient knowledge of the solution but universal consciousness of the gravity of the problem and education of the billions who are its victims."<sup>55</sup>

# POPULATION SOLUTIONS

In an underdeveloped community, most forms of needed development will serve as solutions to runaway population growth. It is a huge mistake for development funding to be postponed since more funding will be needed after the population grows.

The NCAA authorities should be held accountable for delaying development. They are the ones responsible for population growth as well as for the loss of livelihood of the Maasai.

According to a National household survey conducted by the National Bureau of Statistics, there is a high illiteracy rate accounting for 80% of the population growth, with women leading on this. Lack of awareness on family planning issues, undermining culture, under 5 mortality and poverty contribute to desire to have many children with the reason to have enough to provide labor or for going to school, as the way to win out the <5yrs child mortality. (Participant "O" Whatsapp)

## Infant Mortality

Fertility rate is higher when infant and child mortality is high, because of the fear of death of the children at an early age.

In Tanzania the neonatal mortality rate among newborns under 28 days old is 32 per 1,000 live births.<sup>44</sup> This far exceeds the average global rate of 18 deaths per 1,000 live births in 2018.<sup>39</sup>

Fewer than half of all births in Tanzania take place in a health care facility.<sup>46</sup>

Factors contributing to infant mortality are:

- 1) low maternal education,
- 2) low household income,
- 3) mothers under age of 18,
- 4) low maternal weight,
- 5) number of mother's births (>4),
- 6) mothers older (>30 years, especially higher for women > 40 years),
- 7) birth not in a hospital,
- 8) small interval between births (<24 months).<sup>41</sup>

9) mothers eating less “so baby won’t get too fat.” (to avert a difficult birth).

10) difficult workloads during pregnancy (reducing fetal size).<sup>43</sup>

11) lack of prenatal education on nutrition and health during pregnancy, as well as accessibility to hospitals and clinics are other barriers to healthy maternal and child outcomes.<sup>43</sup>

The country Bangladesh in Asia realized it had a problem in 1996,<sup>41</sup> with a large population of 121,000,000<sup>42</sup>. The measures it took to slow population growth were 1) hired and trained a small army of women health workers (no woman had done this before), 2) provided various forms of contraception, 3) lowered the infant mortality rate by treating the two most common problems in infants: pneumonia and diarrhea. The other thing that Bangladesh did was to educate girls. Now the fertility rate of Bangladesh is 2.3 children per woman.

In comparison, the population of Tanzania is 60,000,000.<sup>44</sup>

In 2008, the leading causes of death for children under-five at a rural hospital serving primarily Maasai people in the Ngorongoro District were pneumonia, malaria, diarrheal diseases, neonatal conditions, and malnourishment.<sup>41</sup>

### Breast Feeding, Undernourishment and Fertility

Typically, a woman is infertile when she is breastfeeding.

But several conditions can slow or stop a mother’s production of milk: malnourishment, births spaced too close together, more than 4 births, and mother’s age > 40.

This means a woman can have another child every 9-10 months. Frequent pregnancies will usually result in low birthweight babies or infant mortality, in addition to harming mother’s health.

Low incidence of breastfeeding is associated with incidence of infant respiratory and diarrheal infections, leading causes of infant mortality in this region. Promotion of recommended exclusive breastfeeding (EBF) for the first six months of life in food insecure populations would be more effective if accompanied by efforts to improve food security.<sup>40</sup>

A barrier to EBF from birth to 6 months is the participants’ belief that their milk alone is insufficient nutrition for their infant.<sup>40</sup>

The Second vice President, Ambassador Seif Ali Iddi has advised residents in Zanzibar to practice family planning as an important way to control population growth which contributes to land crisis in the Islands.

He said cultures and religion promote family planning by emphasizing proper **breast feeding**; therefore one can either go for the traditional way or for hospital family planning because both lead them to control birth.

Mr Iddi said that the almost three per cent population growth has led to **land crisis, including invasion of land for agriculture which pose a threat to protection of the environment** and implementation of land master plan.

Tanzania Daily in Zanzibar <https://allafrica.com/stories/201808030519.html>

### Malnutrition - Mother and Infant

The Maasai traditional diet is meat, milk, and blood from domesticated animals. However, land and grazing constraints have led some Maasai to cultivate maize, rice, potatoes and cabbage to meet their nutritional needs. When the NCAA stopped allowing cultivation and restricted the cattle to a smaller area, 9.7% of households fell below the food poverty line, classified as extremely poor and unable to meet the basic food needs of a household.<sup>50</sup>

Food insecurity to indigenous residents of NCA has resulted in poor health compared to Maasai residents of Loliondo Game Controlled Area (LGCA). In this study it was established that on average pastoral women in LGCA were slightly taller and weighed 3.5kg more than those in NCA (Table 2). Similarly, infants of 1.5 to 2 years of age of Loliondo GCA weighed more than those of NCA by at least 1.5kg and the difference was statistically significant ( $p < 0.001$ ). ..(MLUM page 5)

In 2004, Homewood and Rogers reported that 58% or more of NCA population were impoverished; and 55% of children and 35% of adults were malnourished.<sup>82</sup> However, in the Maasai culture, the women eat last, after their husband and children.

Traditionally, Maasai women consume a modified diet, restricting caloric consumption during the third trimester, reducing intake of protein rich foods, and increasing water intake. Most women viewed these nutritional restrictions as necessary for a safe delivery and to limit adverse medical outcomes.<sup>50</sup>

One woman indicated that *“During the rainy season I get vegetables and ugali (stiff porridge), and during the dry season I get only porridge.”* Only three women reported eating any form of protein or dairy product during the dry season, with a majority reporting eating only maize, and maize porridge.<sup>43</sup>

Maternal nutritional status affects the composition and volume of human milk. While some nutrient content, such as calcium, is independent of maternal diet, others such as vitamins A and B6 are highly dependent on maternal nutritional status. Research with lactating women in pastoral communities in Kenya found the volume of mother’s milk consumed by infants was related to the mothers’ body composition, and concluded **“there is a possibility that lactating mothers practicing EBF (Exclusive Breast Feeding) living under harsh conditions may experience periods of low breastmilk volume”** <sup>40</sup>

# EDUCATION

A large part of the high birth rate in the NCA is due to early marriage and early pregnancy. If girls go to school for 12 years, they don't get married early, as a general rule, and they have far fewer (4-5) pregnancies. Child brides don't go to school. They don't learn about family planning. They don't learn that maternal deaths for "women" under age 19 are higher than other age groups, and the risk of obstetric fistula is higher. In order to prove that they are a "woman", they want to have a baby right away. Girls who don't attend school have little choice except to get married when they reach puberty, even if it is against the law. Her parents usually can't afford to keep her.

However, the school system is inadequate in rural areas of Tanzania. All children are required to go to school, but in many areas, a child would have to walk 3 or more hours each day to attend school.

Children must learn Swahili to attend primary school. Many villages have volunteers to teach preschool. The government doesn't provide preschool teachers. Preschool classrooms are often made of sticks and dung by the villagers. Many villages don't have adequate classroom space to accommodate the children who might attend if they had a suitable classroom.

To pass from primary school to secondary school, students must pass a national exam, which requires that they know English. Secondary school is taught in English and English is one of Tanzania's official languages.



Dung and sticks preschool classroom built by the local community. There are 26 kids. The teacher is a volunteer and the community supplies the porridge for lunch. These schools are springing up in many places. These schools may be the "modern houses" that are seen from the air.



While the population of the NCA area, which is the Ngorongoro Division of the district is currently 100,000 people, the whole district population is 200,000 (The district is divided into three *divisions*: Ngorongoro; Loliondo; Sale.). This means 50% of the population resides in each part of the division.

Looking at the 2014 primary education enrollment we see the Ngorongoro Division has 40,372 students, and the Loliondo Division has 33,292 and Sale Division has 36,388. This means that only 36.68% of the primary education students are in the Ngorongoro Division, and that **about 30,000 more should be enrolled in Ngorongoro if Ngorongoro Division was to keep pace with the schooling rate of the rest of the district.** Keeping with current education trends means the NCA will continue to have problems regarding high fertility rates and high pressure on natural resources.<sup>10</sup>

Although some villages had two or three primary schools, the majority of the villages owned one and others had no school at all. There are 21 government and three (3) private preprimary schools, 22 governments and one (1) private primary school and two (2) governments and one (1) private secondary school in all 25 villages. Many schools had insufficient teachers and teaching materials. Many pupils are walking long distance and, in an environment, where wild animals are widespread. Difficulty to easily access education in NCA was one of the reasons that accounted for relatively high dropouts compared to other districts in Arusha Region. **In 2013, the illiteracy level in NCA was 69.1% (PMO-RALG, 2013), however, by 2017 illiteracy level of the population of age five and above had dropped to 64.2% (NBS, 2017).** The literacy rate for males was 44.4% compared to females' 27.8%. This means that 72.2% of females were illiterate in 2017 (NBS, 2017). ....(MLUM 5.2.7.1. Education)

The literacy rate goes up or down with the rate of population growth, but the literacy of each individual is not affected by the population growth. The important thing to know is that the number of literate students and people are going up, and will continue to do so as long as more classrooms are added.

We have 24 primary schools in 25 villages irrespective of the number of primary schools one village has. 23 are government primary schools and 1 is a private primary school (Endulen).

Each of the primary schools act as an umbrella in which one preprimary school is found.

In 11 wards and 25 villages we have 3 Secondary schools and all are probably government schools.

There is no private secondary school in Ngorongoro division: Embarway (ordinary and Advanced level, Nainokanoka sec school, (O&A level) and the new Ngorongoro Girls sec school in Kakesio/Esere.

There is addition of 8 private preprimary schools under NGOs, to make a total of 11 preprimary schools.

Its true that many pupils are walking long distances with very harsh environments, especially during the rainy season where wild animals are found nearly everywhere along the way.

Shortage of teaching and learning facilities can be observed in many of our primary and sec schools. .... (Participant "O" WhatsApp)

The NCAA has failed to provide classrooms near to communities so that children can attend school without walking 6 hours a day. (Participant "S" Whatsapp)



Village woman participant N2, (lady preschool teacher), saying they will miss the benefits from their sponsor: girls and boys education, school uniforms, maize, craft projects, viccoba





Children ages 6-8 walking 6 hours a day to attend school - they must be escorted to protect them against wild animals.



Cape Buffalo



This Maasai-built preschool classroom is made of sticks and dung. It has a metal roof that leaks badly. The children are learning Swahili. The teacher is a volunteer. The preschool had 34 students, but three years after a government-approved classroom was built, the preschool student numbers became 120.

Big progress has been made in this sub-village since a classroom was built by NGO and government funding.

When preschool classrooms were built by the government or with the help of NGOs, in following years, substantially more students attended secondary school.

Maasai children need to learn Swahili because primary school is taught in Swahili. That is why preschool is so important.

Many children approximately 90% of under 6 years are not in preschool they many times start at 7 yrs when they join primary school ...(Participant "K" WhatsApp)



2020 - This classroom in one subvillage has an official capacity of 45, but there are 120 preschool children. Two voluntary preschool teachers give instruction in shifts according to age.

When students had to walk four hours to attend school, the teacher suggested that the parents allow their children to go to government boarding school. Consequently the number of students from that village increased. But younger preschool students are too young to be in boarding school. So they walk daily.

One NGO, seeing that students were having trouble passing the National Exam for entrance into secondary school, bought approved English Language text books for the primary classroom. One girl did so well on the National Exam that she had the highest score in the district.

Another NGO is trying to raise money to build preschool classrooms. But the uncertainty of whether or not residents are going to be relocated could put these programs on hold for many years.

When Tepilit Ole Saitoti was a child in the 1950s, he was the one of 36 siblings who was chosen to go to school. Upon graduation, Tepilit Ole Saitoti became a warrior, then became a ranger for the Serengeti National Park. Later he earned a Bachelor's degree in creative writing from a college in Boston, and a master's degree in natural resources and wildlife management from the University of Michigan. He wrote "The Worlds of a Maasai Warrior".<sup>1</sup>

25 people in one subvillage of 1300 speak English. 14 of them are women. ...(Participant "S" whatsapp)

Pre school registration for under 6 in Nainokanoka ward especially Irkeepusi and Nainokanoka village is high, it can be more than 65% approximately. Bulati will be less compared to other village.

"C" [NGO] tried for the registration as well. Around 200 children to each of their centers. One challenge existing still in the area regarding preschool registration is location of "C" centers and preschool classroom. The centers are located in the central part of the villages. Though it is a long way for under 6 children to walk each day too and back home at evening. It's not safe for their security, due to the nature of the environment.

I heard that "C" [name not given] had plan to expand to other wards such as Xyz [name not given] but not yet started. Most of activities and plans destroyed by covid19. "C" supports about 1800 direct beneficiaries (kids) in Ngorongoro Division. (Participant "O" whatsapp)

There are still some remote sub villages in our area which really need a preschool. (Participant "P" WhatsApp)

As you can see, progress is being made in providing preschool education, but all of this will be interrupted - and maybe destroyed - if the NCCA residents are relocated and the necessary schools are not built. Also, what NGO wants to invest in development that will not be used?



## EDUCATION AT RELOCATION

Eviction of Maasai of Ngorongoro won't be a solution for the growing population of people!. Education of our young generation will be a Key Value for reducing the future population.  
(Participant "M" Whatsapp)

From 2014 to 2017, NCAA spent 11.1 billion shillings for community development projects;  
1. Through NPC education program, NCAA has sponsored 3,800 students at different levels  
2. A total of 25 primary schools and two secondary schools have been built ... (MLUM 5.2.8. Achievements and Lessons Learnt)

It is not true that all 25 primary schools were constructed from the time(2014-2017). Only 4 schools were constructed from 2015. ... Again it is not NCAA/PC who finance these projects it is both citizens, local government (district authorities) and NPC support. We have 11 wards in Ngorongoro Division and only 4 wards had new primary schools.

Olbalbal and Ngoile had 3 primary schools and not any secondary school.

There is only one dispensary at Olbalbal centre.

There is a water problem there. The population at the place is currently high. ... (Participant "K" Whatsapp)

How can we trust the NCAA/PC to fund the necessary schools - preschools and primary and secondary schools - at the relocation place - if they haven't funded the necessary number of schools in the current resident location?

# GENDER EQUITY

A womens representative, “N3”, in one of the villages said:

“Since the first group of women got the Vicoba loan, it has removed poverty for them. They were going to Karatu to beg for maize.

But they are not going now because the Vicoba enables them to have a small business, and to sustain their families.

School uniforms motivated our community, and this is why our preschool is leading our ward by having a higher number of kids -- 100 preschool kids.

FGM practice is not good and through the health classes that we have been attending, we discovered that it is not good to our girls, so I am calling to all in our community to stop. FGM is connected to early marriage, also not good.

These things are not happening in our community now because we are sending girls to school, and after their own education, they will choose their own husband.

The only way to stop early marriage is by sending our girls to school.”

Women are standing up and speaking at village assemblies. One woman asked a woman on a safari trip for a classroom, and for help with their beads business, family planning, and a fix for the water supply so women wouldn't have to walk so far. And the guest was so impressed that she said “yes” and started funding for the community..

Viccobas - village banking programs are helping women start small businesses - Crafts - beadwork, sewing, and bees/honey are ways to make money.

## Secure Your Family Future



An NGO in the district started a program called "Secure Your Family Future" (SYFF). "M" village's administrator, has trained in this course and is now helping to train others in this important concept. In this week long course, the men are learning how to change social norms in relation to women's rights. There is a corresponding course for women. At the end of the course, the men sign and have a candle ceremony. The candle shows there is light on the subject, so now they will come out of the gender box and have joint decisions with their wives and have equitable share of their resources. This project was interrupted by covid19

ADULT LITERACY - several villages are teaching adult literacy (Swahili) and numeracy.

FGM - A woman health educator and a male colleague are going from boma to boma talking about asking each village to abandon FGM, and success looks promising. Covid19 interrupted their progress.

WOMEN'S REPRESENTATION - has been incorporated into CBO (Community-Based Organization) constitutions.

CRAFTS. At least one subvillage is using sewing machines and several are doing bead work.

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One sub-village is hoping to get funding to buy fuel efficient stoves for homes. The old stoves emit large amounts of smoke, which leads to pneumonia and other respiratory diseases

All of these programs (health, education, gender equity, family planning) will be severely disrupted, networks broken, communication lost, participants lost or lives too disrupted to participate, and funding wasted (maybe never recovered if Tanzania economy goes down hill or climate changes too severely) - if Maasai people are evicted from the NCA!



## CULTIVATION / MALNUTRITION

Ecological simulations suggest that cultivation in the highlands would have minimal impact on wildlife<sup>82</sup>,

### Savanna Modelling System

**Cultivation and human population growth.** “We modelled these dynamics in Savanna by adding households, with associated cultivation, to the landscape. Annual population growth of 3% was modelled. In addition, a cultivated area was modelled covering from 0 to 5% of the NCA, with cultivation added in a way that mirrored the current distribution of the Maasai households. When human population growth was modeled, the number of households, with ten people each on average, went from 5000 in year 1 to 7702 in year 15.

**Land dedicated to cultivation went from 4727ha in year 1 to 7293ha in year 15. Effects upon herbivores were small, due to the low rate of cultivation [i.e. about 0.8% of the NCA],** although the short grass plains are not arable and comprise about 50% of the NCA.<sup>59</sup>

Results from the Savanna modeling suggest that:

1. the distribution of rainfall through-out the year may have a greater impact on the ecosystem than its quantity;
2. cattle may be near a carrying capacity determined not by forage limitations but because of disease risks;
3. increasing survival and reducing disease in livestock yields greater returns than increasing birthrates;
4. allowing livestock to graze in areas where they are currently excluded may lead to a slight increase in livestock populations, but sometimes leads to large declines in wildlife populations;
5. **few ecosystem effects were noted when households and cultivation were allowed to grow at 3% per year for 15years;**
6. and when up to 5% of the study area was in cultivation, there were declines 16% in livestock and wildlife populations, except for elephants, which declined by 48%.<sup>59</sup>

Assuming year 1 was 2002, year 15 would be 2017. If cultivation had been allowed to grow at the same rate as the model, then in 2017, 7293ha would still be in cultivation - with few effects on herbivores, and the Maasai residents would have been much less poor - and more nourished, and have lower infant mortality rate - in 2017.

Cultivation is usually not allowed in migration areas because it attracts wildlife and causes human-wildlife conflicts. But small amounts of cultivation is hardly a wildlife problem.

The Maasai have always been people of cattle; they do not take pride in tilling the land and only resort to cultivation in difficult times, as a supplement to traditional animal husbandry. The law that governs the conservation area, however, prohibits any form of cultivation, stemming from the current popular belief that farming and conservation are mutually exclusive. This legislation was created in spite of the fact that cultivation has been practiced in the area since at least 1890, and has never interfered with conservation.

Authorities contend that cultivation, if allowed to continue, will invite immigrants to the area, despite the fact that they have the necessary mechanisms in place to combat illegal immigration.<sup>87</sup>

## History of Cultivation in the NCA

The Maasai moved into the Crater Highlands of Ngorongoro sometime around the 1830s. The latter part of the 19th century saw Rinderpest and smallpox which ravaged the livestock and human populations, followed by wars between Maasai sections. During this period, known as *emutai*, many men from Ngorongoro married cultivators living on the slopes of Mount Meru in Tanzania and the highlands of Kenya. They returned to Ngorongoro in the early 1900s. At this time other WaArusha, WaMeru, and Kikuyu families began to move into the Ngorongoro and Loliondo highlands, with livelihoods that depended on agriculture.

A small number of Maasai women began to plant small gardens (bustani) of a few square meters, consisting of maize and pumpkins during the 1950s.

In 1955 non-Maasai cultivators were evicted from the NCA and the resident Maasai were restricted from cultivating. The Maasai complained so much about this that the Serengeti National Park was divided into two units.

In 1959, The governor of Tanganyika under the departing British administration declared:

*I should like to make it clear to you all that it is the intention of the Government to develop the [Ngorongoro] Crater in the interest of the people who use it. At the same time the Government intends to protect the game animals in the area, but should there be any conflict between the interest of the game and the human inhabitants, those of the latter must take precedence.*

In 1975, cultivation and conservation were again deemed incompatible and agriculture was banned throughout the NCA. Maasai were also evicted from the two of the three craters - Ngorongoro and Empaki - and denied access to the wells along the Olduvai River.

The cultivation ban was lifted in 1992. By the late 1990s, no Maasai could be found who were depending solely on livestock.<sup>68</sup>

The 1995 study, funded by IUCN, was also designed to evaluate the Maasai economy and nutritional status of Maasai residing in the NCA and to assess the impact of lifting the ban on cultivation. The results of this study have been partially reported (McCabe 1997), but not in the detail presented here. The 2000-2001 study, funded by the National Science Foundation (NSF), examined the process of livelihood diversification by the Maasai of Ngorongoro District, with an emphasis of adoption of cultivation. [Sustainability & Livelihood Diversification](#)

"These Maasai farms were meant to be one-acre fields, but they have just exploded," said Justice Muumba, a government conservationist who is not Masai. In 2009, the NCAA forbade the Maasai from growing crops around the crater and arrested people who violated the ban.

Local Maasai leaders insist that only one or two percent of the land has been cultivated, Muumba thought the real figure is "more than 50 percent." <sup>79</sup>

Historically, crop production was not prohibited in NCA Ordinance of 1959, therefore, few pastoralists produced crops legally to complement livestock during food shortage. However, the Ngorongoro Conservation Area Act of 1975 prohibited crop production in NCA. Temporary permission to allow crop production from 1992 to 2013 was caused by increase in human population, which did not correspond with livestock production, which lead to decline in livestock per capita from 12.5 in 1960s to 3.23 in early 1990s. **Generally, crop production is one of the pull factors that motivated immigrants to settle in NCA since indigenous residents are not agro-pastoralists. Usually, crop fields interfere with wildlife and livestock movement and rangelands.** ...MLUM 2.7.3. Crop Production

The Maasai had adopted cultivation as early as 1950, before they were pressured to move to the confines of the NCA.

With bustani [1 acre, used hand tools] people cultivated maize, beans, potatoes, and other crops. We stopped selling livestock, diet improved and eseriani (peace and health of mind) of people improved remarkably. (Participant 21- local community)<sup>2</sup>\_\_\_\_

The NCAA burned garden farms which supported the lives of the residents in year 2008/2009. Then as an alternative they committed themselves to support the community by providing maize to families. ...(Participant "O" Whatsapp)

It was like this. Cultivation was allowed - especially the so called gardens/bustani which were located at Irmisigiyo, Endulen, Olbalbal and Ngoile - only on upside of Olmotii. On the other

side they mainly grow maize and beans, while Nainokanoka grow potatoes and some vegetables. Naiyobi cultivates maize.

In the year 2008 /2009 they stopped this.

So from that time the residents depend on food at **higher prices** from the outside or subsidized maize from the NCAA ..(Participant "O" Whatsapp)

When the NCAA stopped allowing cultivation and restricted the cattle to a smaller area, the government began supplying free food rations. **In October 2013, 7,000 tonnes of maize were delivered to the 87,000 NCAA residents with a commitment of annual ongoing support of 10 bags per family.** These foods were non-traditional to the Maasai, and, although they are addressing hunger related issues, they did not supply sufficient micro-nutrients.<sup>50</sup>

According to WHO, minimum intake for a person should be 400gm grains (cereals) and 100gm of legumes. Therefore, **70% deficit of pastoral food** should be supplemented by grains and legumes. Out of the total human population in NCA of 93,136, the 70% food deficit is for 65,195 people. The average grains required is 26,078 kg (435 bags of maize per day), and for one year the NCA community will require 158,775 bags. At an average price of 50,000.00 shillings per 100kg bag of maize, **NCAA will need to use 7.94 billion shillings for purchase of grains.** In addition, NCAA will need to purchase **6.52 tons of legumes per day**, which is equivalent to 2,380 tons of legumes per year. (MLUM - 5.2.2. Tropical Livestock Unit)

School lunches are provided by the World Food Program (WFP) at Irkeepusi and Nainokanoka primary schools. Children on these programs have good nutrition. Their mothers have more food for themselves.

25,000 school children assisted through the Home Grown School Feeding Programme in Tanzania. Approximately 80 percent of the population relies on subsistence farming and 28 percent of the population lives below the poverty line. Tanzania is classified as a Least Developed Country, ranking among the lowest on the Human Development Index. According to the National Nutrition Survey (2015), **almost 35 percent of children under the age of five are stunted in Tanzania.** (2016)<sup>74</sup>

Apparently, most of the rest of the people of Tanzania are also in a bad nutritional state. It's not just the Maasai.

Compared with other Maasai in rural Tanzania, the Maasai in the NCA have fewer livestock, lower protein intake (primarily from milk) and lower food resources. Also, the growth rate for livestock populations is relatively slow compared to the pace of human population growth rate. Participants indicated that in response to a fluctuating livestock population, from the 1990s the Maasai residents have diversified their livestock-based economy by opting for small scale cultivation with small home gardens (bustani). A ban of bustani was reinstated in 1992 throughout the area arguably because they endanger the wildlife resources which tourism depends upon. The abolishment of bustani, mainly producing maize, beans, potatoes and pumpkins, has made the Maasai in the NCA progressively poorer. The Maasai perceived the bustani as a shield from food insecurity related diseases. The bustani improved the economy and nutritional status of the Maasai and greatly reduced the need to sell livestock to purchase food.<sup>2</sup>

**McCabe (2003) argues that the ban was a hurried decision without any scientific backup to warrant a re implementation of cultivation. More importantly the ban contradicts the goal of improving residents' welfare through diversification of livelihoods, which was one of the reasons to establish NCA.**<sup>2</sup>

2006 - "Ngorongoro Conservation Area (NCA), Tanzania, contains renowned wildlife, an expanding human population, and cultivation by Maasai agro-pastoralists and non-Maasai agriculturalists. We used integrated assessments to explore some effects of cultivation on livestock, resident wildlife, and people. Using a Landsat image from 2000, we mapped 3,967 ha [9,803 acres (ac)] of cultivation within NCA, or 39.7 km<sup>2</sup> of the 8,283 km<sup>2</sup> conservation area. Using integrative ecosystem (Savanna) and household (PHEWS) models, we assessed effects of: up to 50,000 ac (20,234 ha) of cultivation; cultivation concentrated into two blocks totaling 10,000 ac (4,047 ha) and 20,000 ac (8,094 ha) that may be more palatable to tourists; and human population growth. Simulations with from 10,000 to 50,000 ac in cultivation showed no large changes in ungulate populations relative to there being no cultivation. When cultivation was altered to be in two blocks, some wildlife populations changed ( $\leq 15\%$ ) and ungulate biomass remained the same. When cultivation was increased linearly with human population, poor households needed 25% of their diets to come from relief as populations tripled, because livestock could not increase significantly. Our results indicate that **having <1% of NCA in cultivation, in its current distribution, is not overly detrimental to wildlife or livestock populations, and is important to Maasai well-being.**"<sup>73</sup>

2012 - It was a hard situation, where poverty was recorded at its highest levels. The old woman with lots of grandchildren (who is responsible to care and feed them) after their parents escaped and ran to towns as a result of hard situations. The second picture shows that the grandchildren and the Bibi pick mboga (vegetables) to be eaten free of ugali. They have no maize or flour at all while the [third picture] shows that the widow picked leftovers of maize (those that drop in around the maize grinding machines). They have no means to survive after their cattle perished via droughts and they have no stock of maize (grains) as they are not allowed to cultivate. ... (Participant "O" Whatsapp)



During drought times, women are found going to Karatu to find work on the maize farms. Often they don't make enough to send home to their families, leaving them to turn to the "ancient profession".

The MLUM claims:

In 2017, the TLUs in the NCA has progressively decreased to 3.2 in 2017, while according to national standards, a person requires at least 8.0 TLU in order to sustain the food base, which is not the case for NCA

Note 2017 was not a typical year. Things have improved since then. Most resident families have some sort of livestock: sheep, goats, or cattle.

**From the MLUM Oct 2019 .....**

Table 4: Land cover changes (1975 to 2000)

| Land cover type    | Area Cover (ha) 1975 | % cover 1975 | Area Cover (ha) 1991 | % cover 1991 | Area Cover (ha) 2000 | % cover 2000 |
|--------------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|
| <b>Forest</b>      | 93,128.6             | 11.6         | 141,940.6            | 17.7         | 138,437.0            | 17.2         |
| Montane heath      | 24,235.4             | 3.0          | 24,235.4             | 3.0          | 24,235.5             | 3.0          |
| Woodland           | 11,066.2             | 1.4          | 143,417.5            | 17.9         | 142,735.7            | 17.8         |
| Shrubland          | 165,290.2            | 20.6         | 117,737.2            | 14.7         | 118,971.6            | 14.8         |
| Bushland           | 28,048.5             | 3.5          | 40,012.2             | 5.0          | 40,012.0             | 5.0          |
| Grassland          | 449,875.1            | 56.0         | 282,977.0            | 35.2         | 283,307.1            | 35.3         |
| Highland Grassland | 25,438.8             | 3.2          | 32,453.2             | 4.4          | 34,187.1             | 4.3          |
| Cultivated area    | 108.9                | 0.01         | 16,909.1             | 2.1          | 17,695.9             | 2.2          |
| Bare ground        | 31.2                 | 0.004        | 807.7                | 0.1          | 1,021.7              | 0.13         |
| <b>Wetland</b>     | 3,865.0              | 0.5          |                      |              | 44.0                 | 0.01         |
| Water body         | 3,000.0              | 0.4          | 3001.0               | 0.4          | 2,408.5              | 17.8         |
| <b>Total</b>       | <b>802,898.6</b>     | <b>99.9</b>  | <b>802,898.4</b>     | <b>100.0</b> | <b>803,056.5</b>     | <b>100.0</b> |

**Source:** Niboye, 2010

This shows Cultivated Area is 2.1% -----

However, the table was made in 2010 and is completely out of date! Cultivation was banned since then, and was only temporarily allowed in 2013.

Shame on the NCAA for using out-dated material!!



# Handouts / Hunger

The MLUM claims:

Analysis of maintaining the status quo revealed that with an average annual growth rate of 3.5%, human population will reach 200,000 people by 2038. This implies worsening of the well-being of the people as resources can hardly sustain this number and their livestock. Assuming total TLUs will remain 213,040 as it was in 2017 (excluding donkeys), TLUs/per capita will drop to 1.0 by 2038. This means that **the community in NCA will need supplementary food from other sources of about 87%, which is far worse than the current situation of 70%.** (MLUM Executive Summary pg xiii)

Remember the population projection is wrong! 40% is due to immigration. 15% is due to non-Maasai people living there.

## Maize Distribution

According to Tanzania National Bureau of Statistics (NBS), for a single household (minimum of 4 household members), 3 bags of 90kg=**270kg** of cereals (Maize/Rice) are needed in a year to ensure food security... which is very rare if there is no farm. NCAA provides a supplement of **25kg** of maize quarterly. Few families have the ability to maintain for food security annually and this will not guarantee a nutritional/balanced diet. ... (Participant K WhatsApp NCA Concerns group)

Twice in a year the NCAA sells subsidized maize to villages which is then distributed to subvillages, and that is distributed to some households, according to NCAA criteria, with each household receiving 25kg of maize.

The NCAA has offered subsidised maize for many years but they distribute twice a year and it's not even for all people. It is only for some households.

To subvillages like [name withheld] they gave to 100 households. Each household is getting 25kg of maize. They are paying reduced prices of 15000 per sack of 50kg (to be split between two households).

This is what the NCAA is telling the world: that it is feeding people who are living within NCA. This 25kg is for six months. Is this the kind of feeding people? NCAA has been oppressing Maasai who are the indigenous of the place. ..(Participant "S" Whatsapp)

Galvin et al. (2015), established that on average pastoral women in LGCA were slightly taller and weighed 3.5kg more than those in NCA (Table 2). Similarly, infants of 1.5 to 2 years of age of Loliondo GCA weighed more than those of NCA by at least 1.5kg and the difference was statistically significant ( $p < 0.001$ ). (MLUM)

The difference in infant weights may not entirely explain the cause of the low birth weights. Records show that about 65% of women patients in Nainokanoka had upper respiratory inflammation or pneumonia - both which would result from inhaling smoke. Women in the highlands area are probably heating their homes more due to colder weather at higher elevations. Smoke inhalation can cause smaller infant size at birth.

# CATTLE, GRAZING & WILDLIFE SUSTAINABILITY

## Livestock

The cattle get blamed for rangeland degradation multiple times in the MLUM document.

*I remember when the cattle were allowed in the Crater, but not overnight because no houses were allowed to be there. So the cattle had to be driven into the crater in the morning, and out of the crater in the evening -- unlike the wildlife who were there for a much longer period of time. But today the cattle don't go into the crater at all ... (Tourist BP). Still the tale of the cattle degrading the environment lives on in the minds of conservationists*

I live in the low land where wildebeests migration is normal and they cut off all the grass and leave empty the place. My observation showed that, It is not true that the increase in the number of livestock causes shortage of grasses but the little rain that occurs nowadays caused the problem. In this year for instance there is no shortage of grasses despite the presence of both wildlife and cattles. (Participant "0" WhatsApp)

Olmoti Crater is little used by wildlife. Pastoralist livestock were originally banned because of feared *Eleusine* tussock plant encroachment, but it is spreading despite two decades without livestock grazing. Unlike the other craters there is little reason to continue to restrict access to Olmoti and strong reason to open it again to Maasai use.<sup>82</sup>

Do cattle compete with wildebeest? Not very successfully. Livestock are excluded from the short grass plains after the rains start, due to the disease MCF (malignant catarrhal fever) carried by wildebeest and manifesting when the rains start and the wildebeest are calving. The disease is fatal to cattle. This means loss of a prime resource during its peak production; instead there is loss of a potential dry season reserve grazing which must be used in the rains as well; and exclusion from a range of mineral-rich pasture types which would reestablish cattle condition at the end of the dry season (Swift 1983, McNaughton 1988, 1990) and thus determining survival and fertility in the ensuing year.<sup>82</sup>

All year round, cattle are restricted to lower quality resources, while remaining in disease-infested pastures where previously migration and burning would have interrupted parasites' life cycles. Livestock population has had no opportunity to undergo an eruption analogous to that of the wild ungulates.<sup>82</sup>

The increase in human populations, coupled with agricultural intensification, has resulted in invasion and human settlement in rangelands originally reserved for wildlife. Encroachment on wildebeest zones and migratory routes has been noted<sup>34</sup>. These trends may translate to an expansion, rather than a contraction, of the MCF landscape in sub-Saharan Africa, as the present realities of climate change, industrialization and increased pressure on existing land resources portend an inevitable increase in human-wildlife-livestock conflict for the limited pastures, providing ideal conditions for MCF transmission.

In eastern Africa, mobility of cattle from wildebeest zones over long distances, sometimes over 60km, affects their body condition and productivity, reducing milk yield by up to 64%, further increasing the economic vulnerability of pastoralist communities.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4698299/>

Comments on range degradation by livestock in NCA have tended to be based on supposition, and not infrequently motivated by ulterior political designs rather than objective ecological criteria.<sup>88</sup>

Ecological simulations suggest that, by increasing livestock sales, any intensification of livestock numbers could be balanced<sup>82</sup>.



Cattle in 2017 - Wasted due to drought, invasive weeds, restricted from the waters in the Olmoti crater. Buffalo thrive on these weeds. The large clumps are Armakutian - the use it for thatching houses. It interferes with palatable forage for livestock and wildlife.

Zebras in the background share the same fate.

"Most herbivores don't prefer it. It's tough and unpalatable. Donkeys and zebra can feed on it a little bit, but don't prefer." (Participant "D" WhatsApp)

### According to the Multiple Land Use Model document:

Transhumance mode of livestock production system, which indigenous residents practiced for many decades allowed pastoralists to move from one area to another within and outside NCA in search of pasture and water basing on seasonality. Extensive pastoral land use is important for maintaining savannah ecosystems. However, **increase in human and livestock populations is disrupting traditional pastoral systems, which is detrimental to natural resources and leads to ecological changes. Thus, maintaining acceptable limits in livestock production is advocated.** ... MULM 2.7.2. Livestock Production System

For instance, in 2017 more than 77,000 livestock died in the NCA due to drought, inadequate pasture and diseases among other factors .. MLUM pg 69

This has consequently generated human-wildlife conflicts, including repeatedly reported cases of spotted hyenas attacking and killing both people and livestock, unlike in the past ... MLUM pg 69

“During the 2017 drought the Ngorongoro division reported a loss of 77,389 cattle, 72,881 goats and 78,490 sheep, with no economic return left. Compared with the livestock count the previous year, it translates into a total loss of 70% of livestock that can probably be extrapolated to the rest of the district. The work from the consultancy team revealed that during the 2009 drought similar cattle losses were reported in Nainokanoka, Sinoni and Sendui villages, ranging from 71% to 83% and 86% respectively.”<sup>[10](#)</sup>

With regards to livestock losses from droughts, different strategies including capital accumulation, buying fodder, destocking in the dry season and livelihood diversification were employed by local communities to respond to these extremes. However, these strategies have sustainability problems from both environmental and economic perspectives. Behind them are inefficiencies of markets and poor access to early warning information, absence of skills and poor financial management among the pastoralists. The lack of vision from development stakeholders is particularly worrying. Any intervention in pastoralist settings seems to be affected by a limited understanding of the multidisciplinary relationships between the different livelihood aspects of pastoralism. Additionally, interventions only envision changes among the primary sector of the economy, completely disregarding actions that strengthen the industrial (secondary) and tertiary (services) sectors, even if related to livestock.<sup>[10](#)</sup>

The need to transfer much of the growing pastoralist population into these sectors in order to achieve economic sustainability in the long term seems completely ignored, and the importance of education to this regard seems totally ignored, with lack of educational facilities in the district that enable professional diversification.<sup>[10](#)</sup>

There are also severe gaps in education delivery: in 2014 only 40,372 children at primary school age were actually enrolled in NCA, whereas ca. 70,000 would be expected if school attendance there was to keep pace with the rest of the district.<sup>10</sup>

This report also includes an estimate on how much money is getting lost through the different livestock sector inefficiencies observed, as well as the potential for income improvement in the primary sector of Ngorongoro district's economy if such inefficiencies are tackled. The estimates used for potential improvement, derived from the field information collected, can be 50% through improved drought management, 50% through improved markets management, 25% through improved management of breeds and 25% through milk marketing and processing. These improvements could triple the income provided by livestock, showing that the sector in the Ngorongoro District has very promising conditions to support value-added initiatives because of its privileged position between the Serengeti National Park, Lake Eyasi and Lake Natron, with a well-established asset – the Ngorongoro Conservation Area NCA, and with a yet unexploited asset of exceptional cultural landscapes constituted by the Batemi highlands. Even if the income from the livestock-dominated primary sector is improved, however, it will not be possible to take all District populations out of poverty and destitution – and less so if current population growth rates are sustained. Such a scenario will only delay crises that bring widespread conflict and severe troubles to sustain the successful ecotourism industry in the Arusha Region. Hefty investments on service delivery, particularly on education at all levels, can improve incomes by moving people out of the primary sector and – more importantly – can keep population growth under control, thereby bringing economic sustainability.<sup>10</sup>

Rather than the increase in human and livestock populations, the problem is the decrease in rangeland available to the livestock and the failure to provide sufficient food security as compensation for reduced rangeland and sufficient social services like education and health care. See the [Population](#) section.





Endulen Cattle

## Accusations of Overgrazing

Transhumance mode of livestock production system, which indigenous residents practiced for many decades allowed pastoralists to move from one area to another within and outside NCA in search of pasture and water basing on seasonality. Extensive pastoral land use is important for maintaining savannah ecosystems. However, increase in human and livestock populations is disrupting traditional pastoral systems, which is detrimental to natural resources and leads to ecological changes. Thus, maintaining acceptable limits in livestock production is advocated. ...MLUM

### 2.7.2. Livestock Production System

The original official description of the Serengeti National Park and Ngorongoro Conservation Area stated clearly that Maasai interests were to be excluded from the Park because of the political problems envisaged in a multiple land use future, and because of the possible eventual incompatibility of Maasai and conservation interests. However, the subsequent Serengeti Committee of Enquiry gave evidence that serious damage to the environment was already being caused by the Maasai through burning, overgrazing, trampling around water points and tree cutting. It was felt that human and stock numbers would inevitably rise, that damage by Maasai would increase and competition for grazing and water would intensify. The original decision to exclude Maasai from the 12,000 square kilometers Serengeti National Park and to place substantial restrictions on their use of NCA was justified on these grounds.

However, Homewood and Rodgers argued in their study of the Maasailand ecology: 'accusations of overgrazing have typically been poorly defined, unsubstantiated, and based on spot judgements which themselves relate to standards of range condition inappropriate to semi-arid rangelands and pastoralist/wildlife land use'. 'Comments on range degradation by livestock in NCA have tended to be based on supposition, and not infrequently motivated by ulterior political designs rather than objective ecological criteria'.

Nevertheless, they have lost access to crucial grazing areas in the highland forests, the Oldupai Gorge, Laetoli Site and the Ngorongoro Crater, on the argument that the effect of cattle grazing in these areas endangered their conservation values. As to why this has not been the case in the hundreds of years before the first modern conservationist appeared on the scene is never satisfactorily answered. Substantial areas of the 8292 km square NCA are banned to livestock – 40 km square around Olduvai Gorge; 250 km square Ngorongoro Crater, with its **mineral rich grazing grounds, salt licks and permanent water**; 650 km square of forest reserve, the higher portions of which have reserved dry season grazing in forest glades; and the Olmoti and Empakaai Craters.

In addition to the NCAA restrictions, the high quality short grass plains during their period of peak production must be avoided during the rains because of the wildebeest and the MCF they carry. MCF is a viral disease endemic to wildebeest and it is common for newborn wildebeest calves to suffer a mild version for a short time. The disease is highly contagious and fatal to cattle.

The dubious rationale behind these various restrictions imposed by administrative bans continues to be repeated in policy documents and conservationist literature. A Draft Policy for Ngorongoro Conservation Area repeats the **'tragedy of the commons' orthodoxy** in relation to Maasai access to banned but crucial grazing areas. **Victor Runyoro, NCAA's Chief Ecologist, argued: 'The poor Maasai pastoralists in the NCA who unknowingly are misusing their land at risk, are in danger of impoverishment, face a more difficult and uncertain survival if environmental destruction is not checked in the near future'.**

In other words, it follows from his absurd argument: So the 'poor Maasai' have only themselves to blame for their impoverishment, for 'they are unknowingly misusing their land'. And if the environmental destruction caused by these poor fellows is not checked in the near future, probably by withdrawing even more areas in the NCA from their cattle or by 'encouraging' them to settle outside the NCA ... then, indeed, they face 'a more difficult and uncertain survival!' <sup>6</sup>

[See Tragedy of the Commons](#)

The Maasai maintain pasture by the practice of transhumance. Through this the Maasai live in the highlands during the dry season and in the lowlands during the rainy season. While in one zone the other is left fallow to regenerate. The zoning is also done to accommodate the movements of wildebeest and other animals. The pastoral way of life does not interfere with the movement of wild animals. Secondly, the pasture is maintained by periodically burning it. The burning normally done just before the beginning of the rainy season gives the pasture space to emerge anew after the rains. This timely burning of pasture does not destroy plants, as the roots will still be alive for the rainy season. Conventional conservationists have not seen the wisdom of these rational practices. They will rather wait until accidental fires destroy vegetation in the dry season when the possibility of roots surviving until the rainy season is non-existent. <sup>64</sup>

# Rangeland

Rangeland degradation is mentioned 12 times in the MLUM:

(They say it so often that maybe they think we will believe them when they try to convince us that the eviction is justified)

1. TLUs will grow up to 1,150,000 by 2032, but thereafter start to decline due to rangeland degradation and deterioration, and reach 800,000 by 2038. MLUM Pg xiii.
2. Poor ecological condition of the NCA is depicted by range degradation, declined populations of some wildlife species and reduced quality of forage due to increase in invasive alien and pioneer weed species. MLUM Pg 6.
3. As a result, unsustainable use, degradation of natural resources and environment and conflicts could be observed in the conservation area. ...MLUM Pg 16
4. Two out of the major environmental problems, which the policy outlines, are environmental pollution and land degradation (URT, 1997). ..MLUM pg 22
5. Goal 6: Clean water and sanitation; and Goal 15: Sustainable management of forests, combating desertification, halting and reversing land degradation, and halting biodiversity loss. MLUM Pg 29
6. The Convention is geared towards addressing the fragmentation, degradation and upright loss of forests and other habitats, all of which represent a much larger threat to biodiversity. ..MLUM Pg 31
7. This has negative implications on the health of livestock, a situation, which lessens the value of animals for the market. Frequent droughts, diseases and rangeland degradation along with government policies and laws, political interventions, attitudes and change of lifestyles have implications on wildlife numbers and distribution, which may ultimately, threaten the sustainability of NCA as a MLUM. ... MLUM Pg 48
8. These aspects are, persistent deterioration of the rangelands, pasture degradation, prolonged drought, some years having relatively fewer rain-days and prevention of co-utilization of the plains by wildebeests and cattle between February and April due avoidance of the latter from contracting *Malignant Catarrh Fever* (MCF) disease, which is transmitted by the former. ...MLUM Pg 63
9. 5.4.6 Challenges iii Overgrazing, land degradation and invasive species; ..MLUM Pg 65
10. TLUs will grow up to 1,150,000 by 2032 and thereafter start to decline due to rangeland degradation and deterioration and reach 800,000 by 2038. ...MLUM Pg 69
11. This means that supplementary food to pastoral community in NCA will increase to about 87%, which is far worse than the current situation of 70%. In scenario two if the area was left solely for livestock, human population will increase over two-fold to about 200,000 people by 2038 and TLUs

will grow up to 1,150,000 by 2032, but thereafter start to decline and reach 800,000 TLUs by 2038 due to rangeland degradation and deterioration. ...MLUM Pg 87

12. The Tropical Livestock Units (TLUs) per person have declined over years from 11.6 in 1959 to 2.3 in 2017, partly due to high livestock mortality exacerbated by deterioration of rangelands concurrent with high human population growth. .. MULM Executive Summary

In Olmoti Crater, *Eleusine* tussock grassland has remained unchanged, even though there has been a 20 years of grazing ban on Maasai stock. We suggest that the non-burning policy of the last twenty years has led to unpalatable, undergrazed *Eleusine* spreading at the expense of heavily grazed intervening turf species.<sup>[82](#)</sup>

## Rangeland Burning

When the Maasai were in charge of Maasailand: “The pasture is maintained by periodically burning it. The burning normally done just before the beginning of the rainy season gives the pasture space to emerge anew after the rains. This timely burning of pasture does not destroy plants, as the roots will still be alive for the rainy season.

Conventional conservationists have not seen the wisdom of these rational practices. They will rather wait until accidental fires destroy vegetation in the dry season when the possibility of roots surviving until the rainy season is non-existent.” <sup>64</sup> 3.2 Conservation of pasture

Never does the 2019 MLUM mention fire as a solution. It is almost as if the MLUM hid this information so they could blame the Maasai for degradation. However, in the References at the end of the paper, there is this:

Trollope, W. S. W. (1995). Report on the fire ecology of the Ngorongoro Conservation Area in Tanzania with particular reference to the Ngorongoro Crater. Report to NCAA Conservator.

Fire occurs in all of these ecosystems but it's frequency and effect ranges from minor importance in most tundra and desert ecosystems to major ecological importance in humid grasslands and savannas. <sup>36</sup>

Rangeland plants are adapted to normal burning patterns. The high frequency of fire in historical times has required that range vegetation have mechanisms enabling it to survive fire. The plants avoid, escape or endure fire. <sup>36</sup>

Burning has a variety of effects on ecosystems. The fire regime in particular influences the response of plants and animals. Fire is primarily used on rangeland to manipulate plant populations, maintain habitat for animals, improve forage quality, improve forage production, and fireproof vegetation preventing damaging wildfires. <sup>36</sup> Report on the fire ecology

Most savanna ecologists accept that an early dry season burn in the medium grasslands stimulates a flush of green growth, eliminates ectoparasites and encourages the palatable and productive grass *Themeda triandra*. Protection of the forest and woodland edges against burning, together with 'pasture improvement' throughout the rest of this zone by the removal of coarse tussock grasses (largely *Pennisetum*) with ploughing, burning and seeding, followed by rotational grazing. The same arguments apply to the Crater floor where controlled burning would improve the grasslands for wildlife. <sup>82</sup>

Savanna grasslands have evolved with fire. Controlled burning should be reintroduced in the medium and tall grasslands of the intermediate and high altitude zones. Present day rangelands have been shaped by long-term pastoralist grazing and burning. Forest edges can be protected from fire by simple measures.<sup>82</sup>

#### **March 2019 UNESCO: 4.3.3.2 Invasive Species**

Control of invasive species: The State Party developed the Invasive Alien Plants Strategic Management Plan and has been implemented since 2011. The State Party, through the department of Range and Wildlife Management continues to monitor Invasive Alien Species (IAS) in the property. Recently, the NCAA updated the Invasive Plant Strategic Management plan and shared with the World Heritage Centre. The property continues to experience challenges in controlling IAS and different methods have been identified and employed, including mechanical, chemical, and biological methods. The predominant use of the mechanical method in the property has its limitations given its vastness, and the mission could not confirm progress made so far in terms of set monitoring indicators. This requires exploration of other methods for the effective control of the IAS, and this needs to be prioritised as a matter of urgency.

Joint WHC-ICOMOS-IUCN Mission to Ngorongoro Conservation Area.pdf page 31.

## No mention of burning!

#### **Gutenbergia cordifolia** .... Feb 4, 2019

<https://www.ippmedia.com/en/news/scientists-find-answer-invasive-weed>

The deadly *Gutenbergia cordifolia* - known locally as Makutiani, Tagates Minuta and Bidens Chimper - weeds started spreading in the 'World Heritage Site'. There have been various efforts to clear them, including physically uprooting the weeds and burning. However the weeds had hard shelled seeds that burst open due to heat from the fire and their germination further, so we stopped the burning exercise.

Greenleaf desmodium can both annihilate and stifle the growth of the weed, bringing hope of bringing to an end to the stubborn weed. "The sap from crushed *Desmodium Intortum*, when turned into liquid can be sprayed onto the invasive weeds, destroying them instantly while at the same time the treatment remains biologically and environmentally safe," stated the ecologist Magoma. "Once put in practice, the *Desmodium* spraying can eliminate over 80% of the deadly invasive". The campaign is being implemented by the NCAA in collaboration with Nelson Mandela African Institution of Science and Technology, Tanzania Wildlife Research

2017 article on the same subject

<https://www.ippmedia.com/en/news/rapid-spread-killer-weed-nca-worries-conservators>



Exotic weeds like *Armakutian (Eleusine jaegeri)*, *Daturu stramonium*, *Bidens schimperi* and *Gutenbergia cordifolia*, have taken over the rangeland. The Maasai used to burn these weeds.

If the NCAA uses the Greenleaf desmodium to kill the *Gutenbergia cordifolia*, then burns the other weeds, then they could really tell how much the damage to the rangelands would be due to weeds and how much to cattle.



Note: *Armakutian (Eleusine jaegeri)* is the bushy plant in this picture (2017 - a major drought year)

*Fires are key elements in the management of the pastures and ecosystems. We kept at bay unpalatable and coarse grasses like **Armakutian (Eleusine jaegeri)** by burning. To get healthy and good grass, to kill ticks and other bad insects you need to burn pastures. Fresh grass is a joy for both wildlife and cattle. Now that no burning is allowed, the indigenous fauna have been suppressed thus why you see useless bushes and poisonous plants all over. The plants are radically reducing the pastures. (Participant 6-Local community)<sup>2</sup>*

A range monitoring system in conjunction with a controlled burning programme has been developed to provide an objective means of managing the- rangeland of the Ngorongoro Crater. Data revealed that changes have taken place in the vegetation, with a trend towards dominance by taller grasses and dominance by fewer species. Lack of fire has probably contributed to these changes.

Reincorporating fire in the crater is recommended. <https://globalrangelands.org/dlio/47561>

“As part of the Mara Conservancy’s Management Plan, an area of the Triangle is burnt each year. This is carried out on a rotational basis to ensure other areas are afforded years to grow and mature. Fires can be a useful tool to burn away grass and bush, stimulating a new flush of fresh grass for the purpose of improved grazing.” <https://angama.com/blog-posts/the-mara/from-the-ashes/>

“Regarded as the second greatest threat to global biodiversity, invasive alien species pose a real and significant threat to many of Africa’s conservation areas. **Little work has been carried out to document and mitigate the increasing threats posed by alien plants** in either the Ngorongoro Conservation Area (NCA) or Serengeti National Park (SNP) [As of 2006].”<sup>35</sup>

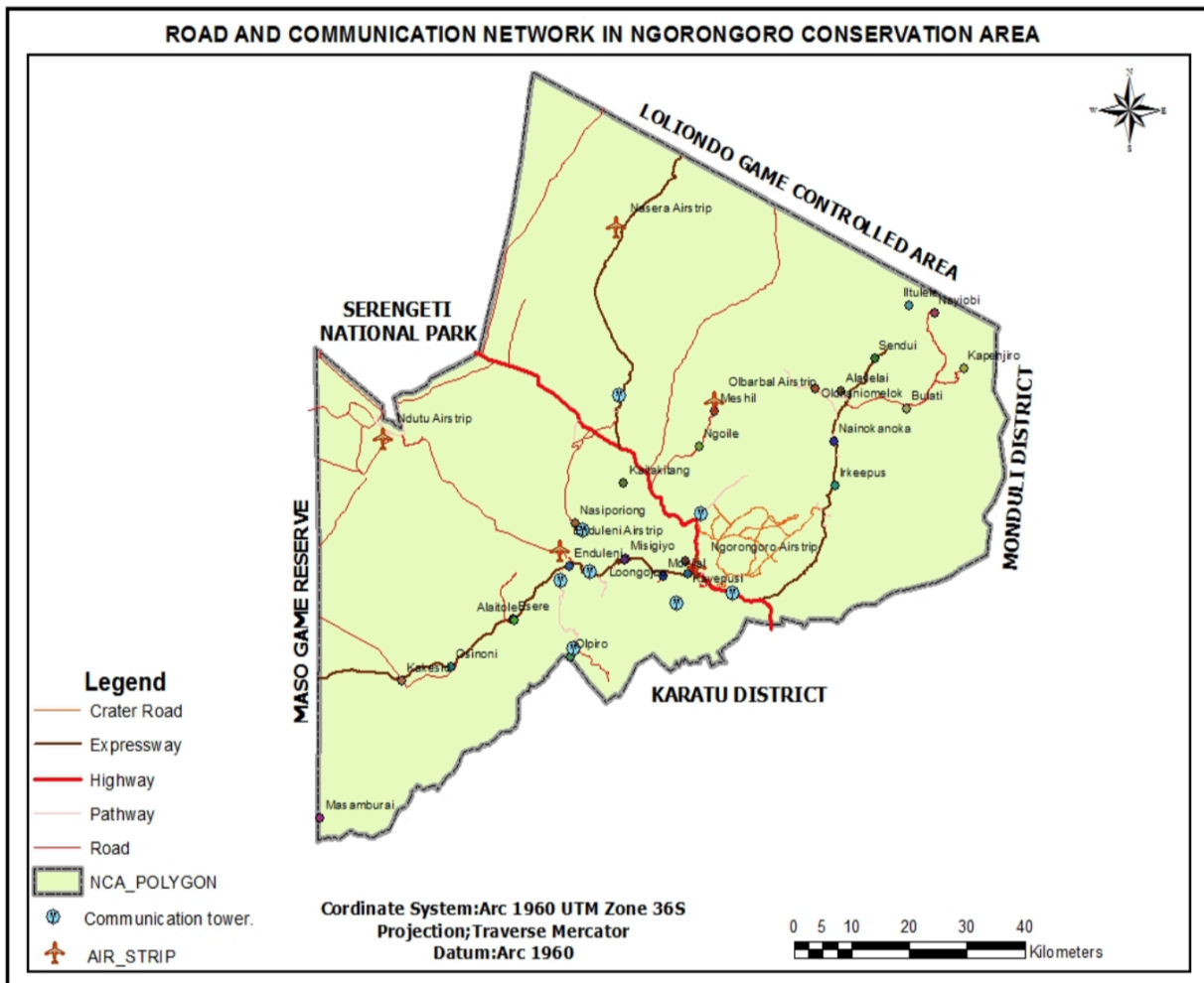
There are invasive species like (Engodo for maa name) *Clusia abyssinica* which needs to be controlled because it closes the open areas, kills consumable grass for both livestock and wild animal.

But *Armakutian* ( *Elysiene jaegeri*) is not simple to be controlled by fire because setting fire support new growth for it....NCAA management had a certain project of removing such tough grasses started in Irkeepusi near cultural boma but I don't think project will be successful because its not working since last year around October. (Participant ND, Whatsapp group NCA Concerns)

“Intentional introductions may arise in the NCA through developing exotic gardens at the lodges and at the homes of staff and other residents. Many of these introductions took place at a time where their effects and consequences were not well known. Alien species are frequently observed at construction sites, such as buildings and culverts (for example)”.<sup>35</sup>

# COMMUNICATION, TRANSPORTATION

Roads, airstrips and communication towers. Besides serving a number of purposes such as administration, anti-poaching and delivering community services, roads and airstrips play a crucial role in enabling the tourists to access attraction sites. NCA has about 500 kilometres of roads and 800 kilometres of tracks and walking trails. There are five airstrips at Ndutu, Olbalbal, Nasera rock area, Endulen and near NCAA Headquarters. In addition, **there are more than 10 communication towers in areas including Oldean, Mokilal; Kayapus; Meshili, Endulen, Naspoorong, rhino lodge and Nainokanoka.** Apart from tourism development, **these infrastructures support** natural resources conservation and **community development** .... (MLUM 2.8.1. Roads, airstrips and communication towers)



Communication is poor for most villages in the NCA. The cellular signal is often very low. With a stronger signal, the internet can be accessed by smartphone. This will enhance distance learning and more access to business, career, and educational opportunities. Increased solar power for charging stations would help.

Radio would be a good addition for health education, distance learning, Swahili lessons, gender equality, educational soaps, livestock shoptalk, bead and leather work communication, cooperative enterprises across village wide network, politics.

The airstrip doesn't fit in a wildlife protection area. Catering to rich tourists can lead to high cost to community development and poor quality natural environment, particularly for wildlife..

# MAASAI CAN DO CONSERVATION

**Homewood and Rogers in their book *Maasai Ecology* point out that:**

1. NCA has a higher proportion of large mammal wildlife to its animal biomass than other joint land use systems and continues to favour wildlife.
2. Other systems (Amboseli for example) which have wildlife:livestock biomass ratios lower than for NCA, but are still of outstanding conservation value. The implication is that NCA has the scope for enduring substantial wildlife population fluctuations before its conservation values are jeopardised.
3. Maasai rangelands that are open areas, and have human interests prevailing and no prescribed protection of wildlife populations, retain comparatively high wildlife:livestock ratios. Similar rangelands are invaluable buffer zones. In contrast, creeping agropastoralism - which concentrates on water sources - leads to wildlife decline.

*NCAA imefeli kiuhifadhi ndio maana hizi changamoto zote zinatukuta*

NCAA has failed in conservation -- something that has caused all these challenges which are upon US. .... (Survey participant EOE1)

## **African People and Wildlife**

<https://africanpeoplewildlife.org/our-story/>

APW was co-founded in 2005 by Dr. Laly Lichtenfeld and Charles Trout with a mission to create win-win solutions for people and wildlife in Tanzania. They built the organization's regional headquarters—the Nolooho Environmental Center—on land that was donated by a local Maasai community. Together with their team of more than 150 Tanzanian program officers, educators, scientists, and community members, Lichtenfeld and Trout developed an extremely ambitious, multi-faceted, and strategic approach to conservation that is widely applicable in landscapes where people and wildlife interact.

Our programs positively impact 35 communities in six critical conservation landscapes across northern Tanzania..                      787,252 acres of critical grasslands managed by communities

## **KopeLion – Ngorongoro**

<https://kopelion.org/>

KopeLion strives to foster human-lion coexistence in Ngorongoro Conservation Area. Here intensifying human-wildlife conflicts has been tough on the lions. In the last decades, the lions have begun to disappear entirely from their former ranges, separating the famous Ngorongoro Crater lions from the Serengeti. The area's mission for harmonious coexistence is collapsing, with both people and wildlife losing out. KopeLion was founded in 2011 with the aim to change this trend. By working directly with residents, KopeLion strives for sustainable human-lion coexistence in Ngorongoro for the benefit of both people and lions.

KopeLion, comprised of local experts and international scientists, employs former lion hunters to actively protect the remaining lions and reduce conflicts. Our work builds upon data collected over the last 50 years, representing the best-known, best-studied lions in the world. This offers the unique opportunity to measure the effects of our efforts on a population of lions, studied for generations.

How we do it

- ✓ Protect lions: Our on-the-ground team prevents and stops lion killings.
- ✓ Increase lion tolerance: We reduce conflicts by finding and retrieving lost livestock, help reinforce bomas, warn herders of lions' presence, and offer wound treatment on injured livestock.
- ✓ Study lions: We find lions and record observations for the long-term demography study. We recognize each lion and follow them throughout their lives. We study how they adapt to living among people, tracking their movements and activity, using GPS collars.
- ✓ Engage with the communities: Our team are mainly locals. We provide employment, embracing traditional practices, working directly with the communities.
- ✓ Study human-predator interactions: We survey where, when and why attacks on livestock happen and by what predator. Knowing livestock vulnerability to attack helps us design better mitigation strategies.
- ✓ Combine and build skills: We maximise our impact and understanding of this human-lion interaction by combining modern techniques, science, and traditional ecological knowledge.
- ✓ Share our knowledge: We compile, analyse and share our expanding knowledge in reports to authorities, peer reviewed publications, and public presentations.

### **Honeyguide - Making People and Wildlife Interdependent**

We believe that change is driven by communities taking ownership of their future and shaping it in their vision. This means that we not only think that communities can run their own conservation areas—they *need* to. We empower communities by building up their in-house capabilities to run community protected areas in an effort to achieve sustainability across three dimensions: financial, environmental, and social. We have a core team of more than 50 individuals—all Tanzanians, ranging from tech-savvy university graduates to veteran anti-poaching commanders, future women leaders to Maasai elders—who are committed to achieving our goal. When communities are equipped with the tools and skills necessary to take the lead in conservation, our work is done.

<https://www.honeyguide.org/>

**Forest Peoples** - Tanzania - The conflict between conventional conservation strategies and indigenous conservation systems.

We conserve nature because we live in it, because it is our life, it is the life of our cattle. The conservation people [referring to NCAA] do it because it gives them employment, because they get money from the white men [tourists]. For them, if the white man does not bring money, it is the end of the story. For us, even if the white man does not bring money we will still preserve the environment. We did it before the whitemen came. We do because it is our lives, it is the life of our ancestors and our unborn children.<sup>64</sup>

<https://www.nashulai.com/warriors>

April 28, 2020

***Nashulai Warriors for Wildlife Protection Young Maasai Warriors Start Wildlife Protection Patrols to Stop Pandemic Poachers***

**Maasai Mara, Kenya**—It's a breathtaking ancestral tradition, adapted for the COVID-19 crisis: dozens of young Maasai warriors come together in the bush, moving rhythmically, chanting, and speaking with elders. They are preparing themselves physically and spiritually for what's to come, but it's not battle—it's wildlife protection. More than two dozen young men have volunteered to act as a first line of defence against poaching in the region. Each is a Maasai warrior from Nashulai Conservancy, the first Maasai-owned conservancy in East Africa. They will support the essential community and wildlife protection work of the trained Nashulai Scouts.

**Multiple Land Use Model pg 20**

The Local Government (District Authorities) Act No. 7 of 1982 [CAP. 287 R.E. 2002] section 22, empowers district authorities to establish villages as the corporate entity with all mandate to own land pursuant to the Village Land Act No. 5 of 1999 [CAP. 114 R.E. 2002]. NCA Act is also inconsistent with the Constitution of the United Republic of Tanzania (URT) of 1977. While Article 24 gives the rights to the people to own property as one of the fundamental right, the indigenous residents in NCA are deprived the right to own land due to the conservation status of the area. Further to that, NCA Act conflicts with the Land Use Planning Act No.6 of 2007 which among other issues requires all land in the country to be used for the benefit of people referred to as "beneficial use" meaning that land be conducive to public welfare and safety; and the Grazing-land and Animal Feed Resources Act No. 13 of 2010, which among other issues stipulates that grazing land should be demarcated within village land. However, villages in NCA do not have village land.

Then don't resettle them in a place that has the same restrictions as the NCA! They should have the same status as those who have "village land".



## VILLAGE-BASED WILDLIFE MANAGEMENT AREAS (WMAS)

This simultaneously provided a new marketing angle for tour companies, and a way for villages to benefit from wildlife directly through joint-venture contracts. Some of these villages earned US\$ 30,000 to US\$ 40,000 per year in direct revenue from safari tourism (Honey, [2008](#); Trench et al., [2009](#)).<sup>4</sup> Second, in response to pressure from international donors, Tanzania began to outline plans for the **decentralization of wildlife management to local communities, particularly through the creation of village-based Wildlife Management Areas (WMAs)**. The role of WMAs was outlined in the Wildlife Policy of 1998, which included a focus on the rights of local people to benefit from wildlife conservation, and the role that wildlife management could play in rural development. The policy stressed that **people in rural areas should receive a fair share of the large revenues from safari tourism and sport hunting** (URT, [1998](#)). WMAs were proposed as community-run conservation areas, with several villages coming together and setting aside land for wildlife conservation.

These reforms — often associated with ‘community-based conservation’ endeavours — are being implemented through coercion, with local resistance to the process being met with a heavy hand by the central state.<sup>20</sup>

# MAASAI RIGHTS IN THE NCA

The NCAA does recognize the United Nations Sustainable Development Goals :

As part of international obligations, in 2015, the United Nations launched a new sustainable development agenda [Sustainable Development Goals] to guide global actions for the next 15 years.

Specifically, the review of MLUM puts more emphasis on **Goal 1: No poverty; Goal 2: No hunger; Goal 3: Good health and well-being; Goal 4: Quality education; Goal 5: Gender equality; Goal 6: Clean water and sanitation;** and Goal 15: Sustainable management of forests, combating desertification, halting and reversing land degradation, and halting biodiversity loss. The goals give facts and figures regarding **poverty, hunger, health, education, gender equality, water** and sanitation and forests. For instance, **Goal 15 clearly states that around 1.6 billion people depend on forests for their livelihood. This includes some 70 million indigenous people; NCA indigenous residents inclusive.** (MLUM 4.4.1. The Sustainable Development Goals (2016-2030) )

This looks like a promise to the pastoral residents of the NCA. This is a good opportunity to make a lot of noise and hold them to their promise. See <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

**The Maasai residents had plenty to say about their rights:**

*Enaang engulukweni nitomitokitio iyiok haki tene paake kanya toi ing'ong'o pee indokiki apuo aiho iyiok tengai weji? [Maa]*

The land is ours and we have been denied our rights, how can you give us those rights elsewhere?

*Kidipa apa atungw'aki iwojitini etipat tendaraki aa hifadhi arashu pee itaai hifadhi enaa ormoti, embakaai oo kreta. Paake kanya toi kingo pee kiata uhakika anyo ore tenidurieri iyiok migiligil apuo aidurie iyiok tine. [Maa]*

We have been restricted from specific and all important areas for conservation such as Embakai crater, Olmoti and Ngorongoro crater. How can we be sure that where you want to send us we will not be transferred again? ...(Survey participant #NLA)

*Akirudunyieki iyiok apa tomoru nihori iyiok korongoro enaa ejung'o amaa tataa teniyeu niworirie iltunganak ingwesi midaltata anyo aiyeu niduririe ilopeny engop. [Maa]*

We were evicted from the Moru area and given the NCAA area as compensation. Now today you want to bring zoning, but you fail to see it as a way to evict the locals. ...(Survey participant #NNA)

*Hatuko tayari kuhama au kuuza ngorongoro kwa fedha.* [Maa]

We are not ready to relocate or sell Ngorongoro for money ...(Survey participant #MSN)

*Ore paa tangu pee etum enakop uhuru etapake irmaasai Wilaya enye naata makao makuu tidie temuduli. Paake kai tetiu paa Irmaasai lekorongoro ake enyokini edura. Kitenyo metii oltungani oidurita ongishu enyana.* [Maa]

Since independence the Maasai had their own district with their headquarters in Monduli and the Maasai have spread to many parts of the country. Why are the Maasai of the Ngorongoro the ones who are told to move. There are no people who want to move with their livestock”.

*Kiomoni pee esuji haki oltungani amu etonyoito Apa irmusungu enarmaasai Enakop.* [Maa]

Human rights should be respected; the Whites said these rights are part of the Maasai and should be given priority.”

*Nyoo ihori iyiok matotoni teneyeweji amu idipaki apa aidurie iyiok tomoru,tekrata,tembakaai oo tormoti.* [Maa]

We ask that we live as normal as we have been relocated from - Moru, Ngorongoro Crater, Embakaai and Olmoti crater.

*Eneyeweji ejung’u aang’.* [Maa]

This is where our heritage is. We're not going anywhere.

*Ake etiwoki iyiok apake etii ilowarak niketoripo nemekiata engipangata peekidurr.* [Maa]

We were born when there are animals and we have continued to take care them and we have no plans to move.

.... (Survey participant #NLA)

## Multiple Land Use Model pg 20

The Local Government (District Authorities) Act No. 7 of 1982 [CAP. 287 R.E. 2002] section 22, empowers district authorities to establish villages as the corporate entity with all mandate to own land pursuant to the Village Land Act No. 5 of 1999 [CAP. 114 R.E. 2002]. NCA Act is also inconsistent with the Constitution of the United Republic of Tanzania (URT) of 1977. While Article 24 gives the rights to the people to own property as one of the fundamental right, the indigenous residents in NCA are deprived the right to own land due to the conservation status of the area. Further to that, NCA Act conflicts with the Land Use Planning Act No.6 of 2007 which among other issues requires all land in the country to be used for the benefit of people referred to as “beneficial use” meaning that land be conducive to public welfare and safety; and the Grazing-land and Animal Feed Resources Act No. 13 of 2010, which among other issues stipulates that grazing land should be demarcated within village land. However, villages in NCA do not have village land.

## **Maasai Rights in Ngorongoro Tanzania, 1998** <sup>90</sup>

by Issa G Shivji Professor of Law University of Dar Es Salaam

The original creation of the Serengeti National Park under the Game Ordinance and its subsequent reconstitution under the National Parks Ordinance did nothing to affect the existing rights of any person in or over the land included in the Park. On the contrary, not only were these existing rights expressly preserved but the Maasai already living within the area of the Park were given positive assurances by Government that their rights would not be disturbed without their agreement" (Tanganyika 1956).

See the communication from the Governor to the Legislative Council on 17 November 1953 where, referring to the creation of the Serengeti National Parks, he said: "When this area was declared to be a national park it was recognised that there were people who had traditional grazing and water rights within its boundaries and that it would not be possible to forcibly to evict these people" (Tanganyika 1954).

The Solicitor General, referring to the phrase 'rights over immovable property' in clause 15, made it clear that the phrase was widely framed to cover all kinds of rights. Major Grundy asked: "Would grazing be regarded as immovable property? The Solicitor General answered in the affirmative "... I mean to say that it would be a right over immovable property" . This exchange makes it clear that grazing rights were also preserved. With the exception of the modification of hunting rights, it is clear therefore that the law at its inception saved all the pre-existing customary land rights of the Maasai residents in the Serengeti National Park including those of cultivation, grazing and residence, in short, the whole bundle of rights to do with using and occupying land were preserved. This is the bundle of rights to land under customary law which has come to be known under the Land Ordinance (No.3 of 1923) as deemed rights of occupancy.

This position did not change with the enactment of the National Parks Ordinance, 1948 (No.7 of 1948), since the relevant sections discussed above were re-enacted in identical terms in Section 11 of the Ordinance. The 1948 Ordinance, however, presaged the separation between the administration of national parks and game reserves, while still maintaining the principle that indigenous people could continue to use and occupy their customary lands within the parks. Sessional Paper No.1 of 1956 affirmed this position in categorical terms as follows: "The original creation of the Serengeti National Park under the Game Ordinance and its subsequent reconstitution under the National Parks Ordinance did nothing to effect the existing rights of any person in or over the land included in the Park. On the contrary, not only were there existing rights expressly preserved but the Maasai already living within the area of the Park were given positive assurances by Government that their rights would not be disturbed without their agreement. (Tanganyika 1956).

The promises of saving and preserving the rights of Maasai residents were translated into the 1975 amendments in the form of explicitly adding a new function to the functions of the Authority. Among its four major functions (i.e. as well as conservation, promotion of tourism, and promotion of the development of forestry) is "to safeguard and promote the interests of the Maasai citizens of the United Republic engaged in cattle ranching and dairy industry within the Conservation Area (Section 5A{c}). At the time it was made, the provision was probably not meant to be anything more than oratory. Whatever the original intentions, the practices of the Authority over the last two decades at least have clearly demonstrated that the provision is not worth the paper it is written on. Yet, at the least, even then it could be argued legally that the Authority has a statutory duty to 'safeguard the interests of Maasai citizens of the United Republic .. within the Conservation Area.

Additional considerations arise from the multiple jurisdictions over the NCA, for example, the Frankfurt Zoological Society and the International Union for Conservation and Nature. These multiple jurisdictions and their resulting conflict have tended to create extreme uncertainty on the part of the Maasai residents in the NCA. the issue of cultivation a major bone of contention.

Because there are so many different jurisdictions, there has been much confusion in the decision-making processes in the NCAA. The lines of responsibilities of the different authorities appear to be unclear.<sup>90</sup>

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There are many more considerations in the Shivji's document, some of which are in the next book, by Laltaika, discussed below.

## Rights and Laws

Violation of the right to land and natural resources puts pastoralists at the receiving end of a wide range of other human rights violations<sup>89</sup> *Pastoralists' Right to Land and Natural Resources in Tanzania* (2014) by Elifuraha Laltaika, a native of Nainokanoka, Executive Director of the Association for Law and Advocacy for Pastoralists in Tanzania, senior law lecturer and Director of research and consultancy at Tumaini University Makumira, former Harvard Law School visiting researcher/scholar; Lomso Fellow at Stellenbosch Institute of Advanced Study (STIAS) in South Africa - also an expert member of the UN Permanent Forum on Indigenous Issues for 2017-2019

The law establishing the NCA and the NCAA did not grant any title to the NCA land to the NCAA. NCA land continued to be owned by the Maasai communities under deemed rights of occupancy. But the law gave the NCAA enormous powers of controlling and regulating the land and resource use in the area and the bureaucratic machine with which to exercise that power.

The various pledges 'solemnly' given in 1959 by the colonial government were not translated into legislation. For example, this did not get put into the legislation:

*“I should like to make it clear to you all that it is the intention of the Government to develop the [Ngorongoro] Crater in the interest of the people who use it. At the same time the Government intends to protect the game animals in the area, but should there be any conflict between the interest of the game and the human inhabitants, those of the latter must take precedence.”*

The law establishing the NCA imposed a dual mandate upon the NCAA to conserve the natural resources of the area and to develop the pastoral Maasai. Minute and detailed provisions were made on how the NCAA was to undertake its first mandate, while only a few general provisions were made on how it was to carry out its second mandate to develop the Maasai residents.

The provisions of section 6 which empowered the Minister to make rules prohibiting, restricting or controlling entry into and residence within the NCA provided (sub-section 2), that: ‘nothing in the rules made under this section shall operate so as to prohibit, restrict or control the entry into or residence within the Conservation Area of any member of the Maasai tribe’.

Rules could require the Maasai residents to apply for certificates of residence, thus imposing further restrictions on the rights of the residents. Nonetheless this power was not used to restrict the entry and residence of the Maasai residents in the Rules enacted in 1964 which imposed the requirement of certificates of residence for some categories of residents. These Rules thus remained within the pledges made by the colonial administration.

The Ordinance gave the Minister and the Authority wide **powers to prohibit, restrict, control and generally manage cultivation, grazing, collection of forest produce and generally residence and settlement in any part of the Area**. It applied to land held by the Maasai communities under the deemed rights of occupancy. **The Ordinance marks the beginning of discriminatory laws and practices in terms of the treatment of the Maasai peoples.**

The first year one Maasai had a place on the board. The next year later practical differences between the government bureaucrats and Maasai representatives could not be bridged. The next year the Minister appointed a new Conservator as Chairman and the regional heads of divisions in place of the Maasai representatives. One Maasai representative was added. From 1962, however, there was no Maasai representation in successive conservation authorities until 1981, when the Member of Parliament for the Ngorongoro District - who happened to be an NCA Maasai - was included in the NCAA's Board of Directors.<sup>88</sup>

In 1993, the economic crisis among the NCA Maasai had increased to the point where it posed a threat to the physical survival of the pastoralists. The NCAA, Government of Tanzania, DANIDA and a Danish NGO by the name of Natural Peoples World (NPW), in response to appeals, reached an agreement towards a five year Economic Recovery Programme funded by DANIDA and supervised by NPW. The goal was to reduce reducing livestock losses by improving veterinary services; better range utilisation mainly through water development; and to uplift the NCA Maasai's destitute families from the poverty trap through restocking (NCAA, 1994)<sup>88</sup>

A number of pilot projects on containment of tick-borne diseases and restocking of the most destitute families were underway with promising results. However by 1996, the programme had collapsed due to intransigence and obstructionism on the part of the NCAA. The NCAA had done its utmost to prevent NPW from working in NCA. It ordered the cancellation of delivery of acaricides for dipping; the withdrawal of entry permits to NPW officials; the cancellation of pilot restocking projects; cancellation of tick-control workshop; cancellation of the construction of veterinary drugs depot; and it finally ordered the expulsion of NPW's coordinator in the NCA. The Danish Committee for Pastoralist Issues said that the Programme's undoing was its conceptual basis which saw empowerment of the indigenous resource tenure system under common property regimes as the best option for the NCA ecosystem and for the pastoral economy. Empowerment of the indigenous land management system would render the official institutions partly redundant. For this and other ulterior reasons, the NCAA management and GOT (Government of Tanzania) authorities would oppose any attempt to recognise the proficiency of the pastoralist resource management system and land rights' <sup>88</sup>



## Colonial Treaty-Making and Native Land Rights

In colonial jurisprudence the agreements between colonial administrations and the 'native tribes' were considered as treaties, for these tribes were considered, for the purpose, as sovereign and therefore the agreements were held to be acts of sovereign states and therefore beyond the purview of the courts. Shivji and Kapunga (1997) seem to argue - on the basis of a decision in The Maasai Case - that the Maasai Agreement of 1958 was one such treaty which intended to secure the land rights of the NCA Maasai. However, treaties, as understood in international law, are agreements between more than one sovereign states; they are sovereign acts. It would be stretching the meaning of the term 'sovereignty' too far to imply that the NCA Maasai were a sovereign state for purposes of treaty-making for, if anything, they were a conquered and colonised peoples who had no shred of sovereignty to enter into a binding international agreement with their conquerors!<sup>88</sup>

The legal circumstance that these kinds of agreements are of dubious legality notwithstanding, examples of 'treaty-making' between colonial conquerors and the vanquished native tribes are legion. This does not, however, in any way invalidate our point. On the contrary it reveals how colonial powers have cynically used treaties inversely to their meaning in international law and understanding, as a tool of colonial conquests and to alienate native lands.<sup>88</sup>

## Conflict Between Right to Food and Ngorongoro Conservation Act 1959

[Laltaika](#) urges Tanzania to adopt "new directions for human rights and the environment" by reforming its current laws in order to conserve wildlife and other biodiversity in a manner that does not unnecessarily abridge the full realization of human rights.<sup>89</sup>

In Tanzania the right to own land is not absolute; rather a landowner is only given a revocable right to occupy a given piece of land. This right is known as the "right of occupancy".

Within the National Land Policy there are the Land Act and the Village Land Act. The Land Act relates to land in mainland Tanzania under three categories: General Land, Village Land and Reserved Land. Reserved Land includes land set aside in accordance to laws governing conservation of forests, marine resources, and wildlife, as well as laws governing land acquisition, highways and land for town and country planning.

Tanzania's legislation relating to wildlife conservation in game reserves, game controlled areas, and the Ngorongoro Conservation Area undermines the rights to pastoralists land and natural resources under two important laws: the Ngorongoro Conservation Act 1959 and the Wildlife Conservation Act 2009.

The Ngorongoro Conservation Area Act (1959) controls entry into and residence within the Ngorongoro Crater Highland Area, and makes provisions for the conservation of natural resources

within the area. It designates the NCA as a “multiple land use area.” which implies the co-existence of the Maasai pastoralists and Wildlife.

Although Tanzania implemented major land reforms in the 1990s, such arrangements failed to benefit Pastoralists living in the Ngorongoro Conservation Area (the NCA). Like most parts of Tanzania, the NCA is divided into registered villages, but in the NCA village authorities have no control over the land. Instead this law vests control of the land to the NCA Authority and, as a result, undermines pastoralists’ right to their ancestral land and natural resources therein. The NCAA has the power to make regulations on where grazing can take place within the area without consulting pastoralists. Because of such tenuous land rights, Maasai pastoralists have found themselves at the receiving end of a wide range of human rights violations.<sup>89</sup>

*Tunataka vijiji vipatiwe hatimiliki ya ardhi baada ya hapo ndio mje tujadiliane kuwa suala la mifugo na watu ni changamoto.*

We want the villages to be given land titles. After that let's discuss the issue of challenges of livestock and people.

*Tupime vijiji ili kuwepo na matumizi bora ya ardhi.*

Let us survey the villages for a better land use plan. .... (Survey participant EOE).

## Right to Food

The right to food has been codified under international human rights law. The Universal Declaration on Human Rights as well as the Convention on the Rights of the Child (CRC) contain explicit provisions on right to food. The International Covenant on Economic Social and Cultural Rights (the ICESCR) says: “State parties to the present Covenant realize the right of everyone to an adequate standard of living for himself and his family, including the right to adequate food”.<sup>89</sup>

The Committee on Economic Social and Cultural Rights (CESCR) in 1991 said the right to food is realized “when every man, woman, and child, alone or in community with others, has the physical and economic access at all times to adequate food or means for its procurement.” There are three obligations under this right: the obligation to respect, to protect and to fulfill. State parties are obliged “to respect existing access to adequate food by not taking any measures that result in preventing such access.” **Tanzania, as a CESCR member, has been taking various measures in compliance with the treaty obligations.**

Despite being a signatory to the ICESCR, Tanzania operates under the Ngorongoro Conservation Act, which essentially prohibits cultivation. The NCAA has the power to prohibit the use of land for any agricultural purposes. Maasai pastoralists are denied the right to a self-sustaining livelihood through farming which exacerbates the problem of food insecurity in their area, making Maasai

pastoralists particularly vulnerable and susceptible to poor health and deaths caused by malnutrition.<sup>89</sup>

In 2009, the NCAA issued a General Management Plan that prohibits cultivation at the time when “the pastoralists had lost almost 80% of their livestock due to the worst drought in the Tanzania’s history.” Since no alternative livelihood option was available to the Maasai pastoralists, they have become dependent on food relief from the Tanzanian government.

According to Tanzania National Bureau of Statistics (NBS), for a single household (minimum of 4 household members), 3 bags of 90kg=**270kg** of cereals (Maize/Rice) are needed in a year to ensure food security... which is very rare if there is no farm. NCAA provides a supplement of **25kg (100kg per year)** of maize quarterly. Few families have the ability to maintain for food security annually and this will not guarantee a nutritional/balanced diet. ... (Participant K WhatsApp NCA Concerns group)

However, food prospects look poor in all of Tanzania ....

According to the National Nutrition Survey (2015), almost 35 percent of children under the age of five are stunted in Tanzania.

[https://www.unicef.org/media/files/Tanzania\\_National\\_Nutrition\\_Survey\\_2014\\_Final\\_Report\\_18012015.pdf](https://www.unicef.org/media/files/Tanzania_National_Nutrition_Survey_2014_Final_Report_18012015.pdf)

While it’s true that Tanzania has declared its commitment to respecting and ensuring the right to food, The Ngorongoro Conservation Act infringes on the Maasai pastoralists’ right to cultivate, clearly violating the ICESCR obligation requiring state members of the ICESCR to refrain from taking any measures that result in undermining the right to food.

Is the ‘right to food’ a justifiable right in Tanzania, and can it be used to secure natural resources rights for pastoralists?

Because Tanzania is a dualistic state, in addition to signing and ratifying a convention, the parliament of the United Republic of Tanzania must enact enabling legislation for the Convention in order to have a legal force or justiciability in a domestic court of law.<sup>89</sup>

But Tanzania does not have a good track record in enacting enabling legislation for the enforcement of International Human Rights Conventions.

However, there may be a window of opportunity. In addition to ratifying the optional protocol on the establishment of the African Court, Tanzania has made a declaration accepting the jurisdiction of the African Court on Human and Peoples Rights (AFCHPR) to entertain cases filed by individuals and Non-Governmental Organizations.

This decision was revoked in 2019 when the Tanzanian government withdrew the right of individuals and NGOs to directly file cases against it at the Arusha-based African Court on Human and Peoples' Rights.

The right to food is not explicitly provided for in the Constitution of the United Republic of Tanzania. The right to life, the right to a just remuneration as well as the right to own property can however be interpreted as embodying the right to food.<sup>89</sup>

### **The Universal Declaration of Human Rights 1948**

Article 25(1) provides in part that “everyone has a right to a standard of living adequate for the health and well-being of himself and his family, including food.”

<http://www.un.org/en/documents/udhr/index.shtml>

Two examples of how this might work: 1. The Supreme Court in India has interpreted the right to life to include the right to food in the case of *Peoples Union for Civil Liberties v. Union of India and Others*. A Public Interest Organization called Peoples Union for Civil Liberties filed the civil case. 2. Tanzanian organizations such as the Association for Law and Advocacy for Pastoralists (ALAPA) and other Public Interest Non-Governmental Organizations can therefore file a similar case at the high court of Tanzania.<sup>89</sup>

# Right to Public Participation

The principle of public participation in decision-making has been described as a right in both the Rio Declaration and Agenda 21.<sup>89</sup>

**Rio Declaration Principle 10** Environmental issues are best handled with the **participation of all concerned citizens**, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

[https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A\\_CONF.151\\_26\\_Vol.I\\_Declaration.pdf](https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf)

## AGENDA 21

2.6. Experience has shown that sustainable development requires a commitment to sound economic policies and management, an effective and predictable public administration, the integration of environmental concerns into decision-making and progress towards democratic government, in the light of country-specific conditions, which **allows for full participation of all parties concerned**. These attributes are essential for the fulfilment of the policy directions and objectives listed below.

3.2. While managing resources sustainably, **an environmental policy that focuses mainly on the conservation and protection of resources must take due account of those who depend on the resources for their livelihoods. Otherwise it could have an adverse impact both on poverty and on chances for long-term success in resource and environmental conservation.** Equally, a development policy that focuses mainly on increasing the production of goods without addressing the sustainability of the resources on which production is based will sooner or later run into declining productivity, which could also have an adverse impact on poverty. A specific anti-poverty strategy is therefore one of the basic conditions for ensuring sustainable development. An effective strategy for tackling the problems of poverty, development and environment simultaneously should begin by **focusing on resources, production and people and should cover demographic issues, enhanced health care and education, the rights of women, the role of youth and of indigenous people and local communities and a democratic participation process in association with improved governance.**

3.6. The focus here is on specific cross-cutting measures - in particular, in the areas of basic education, primary/maternal health care, and the advancement of women. (a) Empowering communities

3.7.Sustainable development must be achieved at every level of society. Peoples' organizations, women's groups and non-governmental organizations are important sources of innovation and action at the local level and have a strong interest and proven ability to promote sustainable livelihoods. **Governments, in cooperation with appropriate international and non-governmental organizations, should support a community-driven approach to sustainability, which would include, inter alia:**a.Empowering women through full participation in decision-making; b.Respecting the cultural integrity and the rights of indigenous people and their communities; c.Promoting or establishing grass-roots mechanisms to allow for the sharing of experience and knowledge between communities; d.Giving communities a large measure of participation in the sustainable management and protection of the local natural resources in order to enhance their productive capacity; e.Establishing a network of community-based learning centres for capacity-building and sustainable development.

10.10.Governments at the appropriate level, in collaboration with national organizations and with the support of regional and international organizations, should establish innovative procedures, programmes, projects and services that facilitate and encourage the **active participation of those affected in the decision-making and implementation process, especially of groups that have, hitherto, often been excluded, such as women, youth, indigenous people and their communities and other local communities.**

<https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

The instrument of the NCAA is the *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*. This Act does spell out appointment procedures to determine the qualifications and experiences that would qualify appointees. In practice the minister appoints fellow serving members of parliaments, disregarding globally accepted constitutional principle of separation of powers and checks and balances. It is the same parliament that is charged with oversight functions on the management and performance of the NCAA. This legal position has seen persistent underrepresentation of Maasai pastoralists save for one or two politicians who are appointed not as a matter of right, but on the basis of the personal whims and discretion of the minister in charge of the management of natural resources. The enormous powers bestowed the minister in appointing individuals to hold government positions is undoubtedly not an indication of participatory democracy or good governance, but rather a reflection of the partiality, potentials of corruption and exclusionary practices.<sup>89</sup>

There is no independent committee that has been formed to scrutinize applications. This means that the same ministerial preferences will prevail.

South Africa is a good example of making fair and appropriate appointments to the board. Africa's *National Environmental Management: Protected Areas Act 57 of 2003* provides for both the

qualifications as well as the procedure for the appointment of Board members to the Protected Areas. Unlike in Tanzania, in South Africa members of parliament or provincial legislature are disqualified from appointment. In regards to the appointment procedure, the minister must release information to the national and provincial media to invite nominations from among members of the public. This provides a high level of transparency and inclusion required in appointing decision makers in natural resources management in Africa. Additionally, the minister must appoint members from the list submitted to him by the general public and only in the case of inadequate nominations can the minister individually appoint a suitable candidate out of a list submitted to him. Furthermore, the law stresses that the minister's appointments must reflect a broad range of appropriate expertise, while simultaneously taking into account the need for appointing persons disadvantaged by unfair discrimination as a form of affirmative action.

<https://www.gov.za/documents/national-environmental-management-protected-areas-act>

The Maasai pastoralists in Ngorongoro have demanded legal backing for meaningful representation in the decision making body for many years. The government of Tanzania responded by helping establish the Pastoralist Council (PC). But this council is only advisory to the NCCA board and cannot make any decision without the approval of the board of directors of the NCCA.<sup>89</sup>



## The Wildlife Conservation Act

The Wildlife Conservation Act of 2009 was enacted in order to enable legal environment for conserving, managing, protecting and sustainably utilizing wildlife and wildlife products. The objectives of this law include putting in place equipment, sufficient personnel and appropriate infrastructure for the protection and conservation of wildlife resources and its habitats in game reserves, wetland reserves, game controlled areas, wildlife management areas, dispersal areas, migratory route corridors, buffer zone and all animals found in areas adjacent to these areas.

Unlike the Ngorongoro Conservation Area Act discussed above, this law was enacted at the time when the need for human rights based approaches to environmental conservation had gained prominence in international discussions.<sup>90</sup> According to Kravchenko and Bonine, the turning point was the first earth day in April 1970, followed by the Stockholm Declaration. See KRAVCHENKO & BONINE, *supra* note 68, at 3

This fact notwithstanding, the Wildlife Conservation Act of 2009 undermines pastoralists' right to land and natural resources when it comes to the management of Game Controlled Areas hence leading to the abridgement of a wide range of other rights as discussed below. [89](#)

A 'Protected area', as defined by the International Union for the Conservation of Nature (IUCN) is "An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, and managed through legal or other effective means". [89](#)

## The Right to Housing: Eviction

The Committee on Economic Social and Cultural Rights (CESCR) in its General Recommendation No. 4 (1991), made it clear that "the degree of security of tenure that guarantees legal protection against forced eviction, harassment, and other threats is necessary for all persons to possess." However, the Wildlife Conservation Act, referred to above, puts pastoralists below the threshold of the degree of security proposed by the CESCR. [89](#)

The relevant provision provides that, "[a]ny person shall not, save with the written permission of the Director [of wildlife] previously sought and obtained, graze any livestock in any game controlled area." This provision disregards the fact that Game Controlled areas are homes to Maasai pastoralists who have freely grazed their livestock for centuries; so prohibiting livestock grazing effectively proscribes Maasai of their right to sustain themselves by means of a pastoral livelihood. Despite falling within the category of protected area, previous laws regarding these game controlled areas did not interfere with the pastoralists' right to their ancestral land. Rather, they enabled pastoralists to remain in these areas in legally recognized village lands alongside wildlife. In response to the reality of such co-existence, the Division of Wildlife initiated a scheme called Wildlife Management Areas (WMA). Although this program has since been marked by a lot of pitfalls since its initiation, it **began as a**

**rhetorically important measure that entailed a land use plan aimed at involving the local community in the conservation of wildlife in their respective Village Lands.**

Therefore, in order for this new law to be fully implemented the Maasai pastoralists must be evicted and barred from continued use and occupation of their ancestral land. **In the alternative, the government can deregister pastoralists' lands from the list of Game Controlled Areas.**

Advocates for pastoralists' land rights speculate that the government is more likely to implement the second alternative, of course after excising strategic areas that may contain important natural resources that support pastoralism such as seasonal pasturelands, salt lick, and water sources. This speculation is based on the experience of the government's decision in 2009 to forcefully and unlawfully evicts pastoralists from parts of the Loliondo Game Controlled Area.<sup>[89](#)</sup>

It is therefore obvious that even prior to the implementation of any of the two alternatives above, the Maasai pastoralists are subjected to lack of security of land tenure and constant fear of eviction and as a result viability of their livelihood is threatened. This constant fear of a possible eviction has interventions by international actors. **By preventing pastoralists from grazing livestock, in their ancestral land, the provisions of the new law also stand contrary to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)<sup>104</sup> and the International Covenant on Civil and Political Rights (ICCPR), which provides in part that "by no means may a people be deprived of its own means of subsistence."**<sup>[89](#)</sup>

## **UNDRIP - United Nations Declaration on the Rights of Indigenous Peoples**

### **Article 1**

Indigenous peoples have the right to the enjoyment, as a collective or as individuals, of all human rights and fundamental freedoms as recognized in the Charter of the United Nations, the Universal Declaration of Human Rights and in international human rights law.

### **Article 2**

Indigenous peoples and individuals are free and equal to all other peoples and individuals and have the right to be free from any kind of discrimination, in the exercise of their rights, in particular that based on their indigenous origin or identity.

### **Article 3**

Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.

### **Article 4**

Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions.

### **Article 6**

Every indigenous individual has the right to a nationality.

### **Article 7**

1. Indigenous individuals have the rights to life, physical and mental integrity, liberty and security of person.
2. Indigenous peoples have the collective right to live in freedom, peace and security as distinct peoples and shall not be subjected to any act of genocide or any other act of violence, including forcibly removing children of the group to another group.

### **Article 8**

1. Indigenous peoples and individuals have the right not to be subjected to forced assimilation or destruction of their culture.
2. States shall provide effective mechanisms for prevention of, and redress for:
  - (a) Any action which has the aim or effect of depriving them of their integrity as distinct peoples, or of their cultural values or ethnic identities;
  - (b) Any action which has the aim or effect of dispossessing them of their lands, territories or resources;
  - (c) **Any form of forced population transfer** which has the aim or effect of violating or undermining any of their rights;
  - (d) Any form of forced assimilation or integration;
  - (e) Any form of propaganda designed to promote or incite racial or ethnic discrimination directed against them.

### **Article 17**

1. Indigenous individuals and peoples have the right to enjoy fully all rights established under applicable international and domestic labour law.

**Article 19** States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them.

**Article 20**

1. Indigenous peoples have the right to maintain and develop their political, economic and social systems or institutions, to be secure in the enjoyment of their own means of subsistence and development, and to engage freely in all their traditional and other economic activities.  
2. Indigenous peoples deprived of their means of subsistence and development are entitled to just and fair redress.

**Article 21**

1. Indigenous peoples have the right, without discrimination, to the improvement of their economic and social conditions, including, inter alia, in the areas of education, employment, vocational training and retraining, housing, sanitation, health and social security.  
2. States shall take effective measures and, where appropriate, special measures to ensure continuing improvement of their economic and social conditions. Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities.

[https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2019/01/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2019/01/UNDRIP_E_web.pdf)

**(ICCPR) International Covenant on Civil and Political Rights**

3. The States Parties to the present Covenant, including those having responsibility for the administration of Non-Self-Governing and Trust Territories, shall promote the realization of the right of self-determination, and shall respect that right, in conformity with the provisions of the Charter of the United Nations.

## The Right to Participation

In relation to the discussion above on Ngorongoro, it is clear that representation in government decision-making is key to any hope of meaningful progress involving low-income communities. In the case of the Wildlife Conservation Act, however, Maasai pastoralists have not realized their right to participate in the decision-making processes, despite the fact that this Act immediately and directly affects Maasai livelihoods. As reflected in the procedures for appointing members, this Wildlife Conservation Act limits the appointment of a representative from the pastoralists.

The decision-making body is called the Board of Trustees of the Wildlife Protection Fund (BTWPF), and it has the authority to purchase or alienate movable and immovable property (i.e., land). The

BTWPF also manages the Wildlife Protection Fund, whose functions include “the development of communities living adjacent to the Wildlife Protected Areas.” <sup>89</sup>

Eligibility for appointment to the BTWPF as provided by the law narrows the chances for both members of the Maasai pastoralists as well as Non-Governmental Organizations (NGOs), hence making it less inclusive contrary to the principles of governance and democracy. While the President appoints a person with proven experience in public service, the chairperson to the BTWPF, six other members of the BTWPF are also appointees of the president (or their nominees) by virtue of their positions.

The minister in charge of wildlife conservation appoints the remaining two members but experience has shown that the minister appoints fellow politicians, mostly members of parliament or retired army officers. In view of the above and given the enormous powers of both the minister and the BTWPF, it is clear that pastoralists deserve more meaningful involvement.<sup>89</sup>

*Tume iliyoongozwa na Dr Runyoro ilishakuwa na majibu mfukoni.*

The commission was headed by Dr Runyoro who already had answers in his pocket. ... (Survey participant #MSN1)

## RIGHTS CONCLUSION AND RECOMMENDATIONS

Laws of Tanzania relating to wildlife conservation interfere with pastoralists’ right to land and natural resources. As a result, pastoralists find themselves at the receiving end of human right violations as demonstrated by both substantive as well as procedural rights discussed above. It is therefore recommended that Tanzania do away with all provisions that prohibit pastoralists’ continued access and use of their land. Instead, legislation should embrace co-management of protected areas by empowering villagers and village authorities to sustainably manage wildlife in their respective village lands.<sup>89</sup>

For Ngorongoro in particular, Tanzania can use international arguments on REDD+ (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries) incentives to do the same locally. Conceptually, REDD+ is based on the need to order to reduce the impacts of climate change by providing incentives to developing countries that opt to avoid destroying their forests by converting them into farmlands. In other words, REDD+ is based on financing “avoided development opportunities.” Similarly, pastoralists in Ngorongoro have “avoided” a lot of development opportunities that the ancestral land could provide and therefore do not deserve starvation. Instead, their right to land and natural resources should be realized and respected.<sup>89</sup>

# CONCLUSION

On this Indigenous Peoples Day (October 12), I would like to point out the similarities between the Maasai and many other indigenous people.

Many of the world's indigenous people have had their ancestral lands taken from them. Even though the Ngorongoro Conservation Area Authority has no title to the land that belongs to the Maasai, the NCAA has been given the authority to impose restrictions on the use of their own land.

Like many other indigenous people, the Maasai have seen their rights -- as defined by international rights-based organizations -- trampled by opportunists keen on financial rewards.

The MLUM gives lip service to many of the United Nations Sustainable Development Goals adopted by 193 countries:

- Goal 1: No poverty
- Goal 2: No hunger
- Goal 3: Good health and well-being
- Goal 4: Quality education
- Goal 5: Gender equality
- Goal 6: Clean water and sanitation.

However, by cutting off cultivation and restriction of grazing land, and not providing sufficient food relief (maize), Goals 1, 2, and 3 are not met. Good nutrition requires 270kg per household of 4, once a year. The NCAA claims to give 100kg of maize per year, while Maasai residents claim it's more like 25kg twice a year (50kg), and not to all households, and it's not free.

The Universal Declaration on Human Rights as well as the Convention on the Rights of the Child (CRC) contain explicit provisions on right to food. The International Covenant on Economic Social and Cultural Rights (the ICESCR) also has provisions for food rights.

As for Indigenous peoples' right of assembly and participation in matters that concern them:

"144 countries have signed The Declaration on the Rights of Indigenous Peoples (UNDRIP or DOTROIP), which is a non-legally-binding resolution passed by the United Nations in 2007. It delineates and defines the individual and collective rights of Indigenous peoples, including their ownership rights to cultural and ceremonial expression, identity, language, employment, health, education and other issues. It "emphasizes the rights of Indigenous peoples to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations". It "prohibits discrimination against indigenous peoples", and it **"promotes their full and effective participation in all matters that concern them and their right to remain distinct and to pursue their own visions of economic and social development"**

And in UN AGENDA 21:

2.6. Experience has shown that sustainable development requires a commitment to sound economic policies and management, an effective and predictable public administration, the integration of environmental concerns into decision-making and progress towards democratic government, in the light of country-specific conditions, which **allows for full participation of all parties concerned**. These attributes are essential for the fulfilment of the policy directions and objectives .... <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

There is no evidence that the spectacular assemblages of African wildlife populations in the NCA are threatened by the presence of the Maasai and their cattle. There is evidence of rhino poaching accomplished by an NCA rhino ranger.

This status is in contrast to the vast majority of the rest of the world where the average size of wildlife populations has plummeted more than two-thirds in less than 50 years, according to the WWF (World Wildlife Fund).

There is no evidence that the presence of Maasai cattle has impacted wildlife.

Rangeland degradation is caused by unpalatable weedy grasses that invade the rangeland and that Maasai used to seasonally burn before Ngorongoro became a park.

Individual cattle have no more impact on the rangeland than a wildebeest, and there are 22,000 cattle and 1.7 million wildebeest.



Drought + *Armagutian (Eleusine jaegeri)* + ticks = disaster

Cattle are unreasonably constrained in three ways:

1. They can't graze with wildebeest during calving time because they carry a disease fatal to cattle.
2. They have lost their traditional access to the three craters.
3. The remaining area where they are allowed is full of disease-carrying ticks and unpalatable grass and shrubs.

This is why poverty and malnutrition is so high among the Maasai.

The high Maasai population number of 93,000 in 2017 (about 100,000 in 2020) claimed by the MLUM is tremendously overblown. An estimated 15,000 are either NCA staff, tourism-related, or school teachers, religious workers, men who left the NCA to find work, and the students attending secondary school and universities most of the year outside the NCA. Another 40% are immigrants. While it is too



late to evict most of the immigrants, future immigration could be stopped because Maasai are not eager to increase their population, given the ramifications.

Population growth is primarily determined by three things: 1) Girls education, 2) Voluntary family planning, and 3) Infant mortality rate. This means Education, Health Clinics, and good Nutrition are important to keep population growth low.

Maasai population growth is 2.8% or less - slower than the Tanzanian population growth rate, or the 4% cited for cultivators outside the NCA. Population growth should be addressed by the NCAA instead of their assigning blame. If anything, the blame should be on the NCAA for not honoring the original agreement (made when the Maasai had to abandon the Serengeti) and for not honoring basic rights.

If the NCAA had provided the development it promised in the first place, such as schools, preschools, and health clinics (including family planning methods), population growth would be much lower by now. Children shouldn't be walking 3 or more hours each day to attend school.

The Maasai 'footprint' is tiny in comparison to the footprints of tourists, tourist-related personnel, and NCAA personnel. It is mostly these people and their "modern houses" and buildings -- that the MLUM and UNESCO complain about -- belong to.

Half of the population (100,000) of the Ngorongoro District lives in the NCA (Ngorongoro Division). (A division is part of a district). The other half lives in Loliondo and Sale Divisions. In 2014 only 36.68% of the primary students lived in the NCA. This means that about 30,000 more primary students should be enrolled in Ngorongoro, if the Ngorongoro Division was to keep pace with the schooling rate of the rest of the District. Staying with current education trends means the NCA will continue to have "high" fertility rates.

While the rate of illiteracy may be increasing, it increases with population growth and lack of schools. However, literacy (the number of people who are literate) is increasing. The number of Maasai - with most of them knowing Swahili, their second language - who participated in the recent survey in this report is large compared to other, similar reports.

Ecological simulations (Savanna Modelling System) suggest that subsistence cultivation in the NCA highlands would have minimal impact on wildlife.<sup>82</sup> Annual population growth of 3% was modelled. *(It is probably lower if you discount the immigrants and the non-Maasai staff of the NCAA or tourist companies and the teachers and religious workers).* A cultivated area was modelled covering from 0% to 5% of the NCA, with cultivation added in a way that mirrored the current distribution of the Maasai households. When human population growth was modeled, the number of households, with ten people each on average, went from 5,000 in year 1 to 7,702 in year 15. Few ecosystem effects were noted when households and cultivation were allowed to grow at 3% per year for 15 years.

Assuming year 1 was 2002, year 15 would be 2017. If cultivation had been allowed to grow at the same rate as the model, then in 2017, 7293ha would still be in cultivation - with few effects on herbivores, and the Maasai residents would have been much less poor - and more nourished, and have lower infant mortality rate - in 2017.

The Maasai have shown that most of them do not want to relocate.

*Hatuna mpango wa kuhamama maana sisi ndio walinzi wa wanyamapori.*

We have no plans to relocate because we are the custodians of wildlife. .... (Survey participant NLA1).

It is time that the NCAA listens to them. It is not right that the NCAA does not employ them. It is not right that tourists are considered more important than Maasai.

In the meantime, the problems the NCAA has planned to give to the Maasai keep piling on:

1.

“Ref. Assignment to Identify and mention the natives/indigenous individuals/families which are willing and able to hire land out of NCA Land

The Ngorongoro Conservation Authority through the Department of Social Development is conducting an exercise to identify farms suitable for the cultivation of crop crops outside NCA land

The aim of the project is to find an area for agricultural purposes so that the willing and able locals can farm so that they can get enough food **as the authorities are currently in the process of withdrawing from buying cheap maize for locals.**”

2.

The remaining seven (7) settlements namely Irkeepus, Bulati, Nainokanoka, Nayobi, Kapenjiro, Sendui and Mokilal should continue to be settlements but **with strict land uses and development activities**. However, within proposed settlements there should be **major internal resettlement and demolishing of buildings both public and private that are currently located in sensitive conservation areas like wildlife movement routes**. Whereas private buildings that were built without permit shall be compensated, those without will not.

Why should these seven villages (in two wards: Nainokanoka and Naiyobi) be treated differently than the others, which are given the status of “villages”. Is it fair that they will be the ones to suffer “strict land uses and development activities, major internal resettlement and demolishing of buildings both public and private that are currently located in sensitive conservation areas like wildlife movement routes”. The Maasai have already shown that they can live in the wildlife movement zones without disturbing wildlife. .... What happens to the classrooms built for their students?

This is a shocking, deer-in-the-headlights proposal! After all the other insults, what more can be said that hasn’t already been said?

It won’t be fair to the community. .... (Survey participant ISN).

## RECOMMENDATIONS

1. Restructure NCA, top to bottom, re-establish the rule to place Maasai status over Tourism, hire Maasai in high places.

According to Tundu Lissu, in his *Policy and Legal Issues on Wildlife Management in Tanzania's Pastoral Lands: The Case Study of the Ngorongoro Conservation Area*:

It has been shown that pastoral land and resource use has not had any deleterious effect on the NCA ecosystem. That pastoralism is compatible with wildlife conservation is today widely acknowledged. It is, therefore, obvious that there is no scientific basis for continued restriction of Maasai livestock in certain parts of the NCA, which are also crucial to their climate-driven pastoral land and resource use.

We recommend a massive overhaul of both institutional and legal structures in place in the NCA. We recommend the disbanding of the NCAA and establishment of an institution which will have a substantial local representation to ensure that local interests are not compromised by central government bureaucracies. We also recommend the removal of all restrictions imposed on the Maasai and their livestock in those areas which are crucial to the maintenance of a viable pastoral production system.

The following legal and policy issues and options appear to the author as forming the foundation for a new and more equitable multiple land use system in the NCA.

1. There must be a fundamental 'philosophical' shift from the 'protection-against-man' conservationism to a philosophy where man not only co-exists harmoniously with the natural world around him but also makes use of that natural world in a sustainable manner to ensure the survival of both.
2. At the level of policy and legal reform, there must also be a fundamental shift in the balance of power in the relationship between the state and conservation agencies on the one hand and local pastoral communities on the other. This shift should be in favour of decentralization of power away from state domination and along the following lines:
  - (a) Ownership and control of the land and natural resources of the NCA in the direction of co-ownership of these resources between the state and local communities. Continued monopolistic state ownership will not do.
  - (b) Equal participation in all aspects of the management and the sharing of the benefits accruing from the resources of the NCA.

(c) Freedom of movement of man and livestock should be restored. Controlled grazing areas should be negotiated with the pastoralists instead of being imposed on them by force of arms.

3. At the level of institutional reform, given the animosity the NCAA has created towards the local pastoral communities, given its violent and repressive practices against the pastoral communities and given its failure to stem the tide of poaching in the NCA, there is a need to disband this institution and create another which will have, as a matter of principle and practical common sense, equal representation of the Government and local communities in the area.

There will be stakeholders who have a stake in the maintenance of status quo and who fear being made redundant

It must be remembered that in the African savanna systems, man has traditionally played a very significant role in maintaining the ecosystem - as a livestock grazer, as a predator, and as a bush regulator by burning and cutting wood for cooking or building. Excluding these elements from the parks introduces disastrous elements into the ecosystem.<sup>88</sup>

2.

Efforts to benefit the Maasai and wildlife should include Maasai education for

- a. involvement in tourist operations,
- b. the establishment of more cultural bomas and
- c. walking tours throughout the surrounding areas of the Crater,
- d. disease abatement and improved veterinary services,
- e. enhanced medical services,
- f. adequate control of immigration,
- g. improved water and pasture management practices,
- h. increased studies on threatened and isolated species with an emphasis on genetic diversity,
- i. involvement of Maasai in studies to identify rare species and to increase understanding of the NCA environment.

Cooperative efforts between the NCAA and the native Maasai will not only help improve the situation of the Maasai and their livestock, but it will also advance conservation efforts for the preservation of NCA wildlife which are of immense international importance.

[https://repository.upenn.edu/cgi/viewcontent.cgi?article=1009&context=mes\\_capstones](https://repository.upenn.edu/cgi/viewcontent.cgi?article=1009&context=mes_capstones)

3. Restore right to assembly. Promote various grassroots organizations, each of whose function are for specific things, for example:

- a) Establish architectural standards for modernization of Maasai homes (if pleasing tourists is essential to Maasai existence in the NCA),
- b) Make proposals to solve malnutrition within the constraints of the OUV,
- c) Health services improvement,
- d) Communication, cell reception, internet, Radio, etc.

- e) Gender equity,
- f) Making the best of livestock as a livelihood.
- g) Making resettlement work, if possible. If not, provide a good argument against it - don't let them get away with repeating the "unsustainable" argument.
- h) Jobs within the NCA, Maasai employment union,
- i) Preschool solutions for example: inexpensive classrooms, connecting to World Food Program for lunches, inexpensive uniform making.

4. Form an NGO under Tanzania regulations for Ngorongoro residents; Build a web page and open a Facebook account for fund-raising. Raise funds for a communications network, including cellular and radio.

## 5. Education

- Apply for school lunches for all preschool and primary classes.
- Achieve primary and secondary schooling rates of 100% to increase livelihood diversification opportunities, to reduce poverty, to tackle demographic growth and to reduce burden on natural resources.
- Build more classrooms near communities so primary children don't have to walk more than 1 hour.
- All candidates passing the National Exam for secondary school will receive funding for uniforms, dorm supplies, and associated transportation.
- Provide professional, financial and entrepreneurial education to adults for adequate livelihood diversification and incorporation of locals into secondary and tertiary sectors of the economy.
- Increase knowledge on pastoralist livelihoods
- Deliver trainings on the environmental, social and economic aspects of pastoralist livelihoods and how they are interconnected
- Craft training (hand crafts, building crafts)
- Veterinary training
- Health Care training
- Law, Political Science, Business
- Media training, communications training

6. Health - Family planning, infant survival, reproductive health care, nutrition, interpreters, health education outreach, vaccinations, health education

7. Promises never kept - insist on fulfilling them.

8. Community Voice

8. Ethnography (people should know who you are and why they would appreciate you)

9. Transportation, communication

10. Drop UNESCO if their demands hurt the Maasai

11 Value traditional knowledge, traditional governance systems and traditional rangeland management knowledge, and stop focusing interventions on establishing rangeland management plans.<sup>10</sup>

12 Eradicate weeds. (Make this a Maasai project).

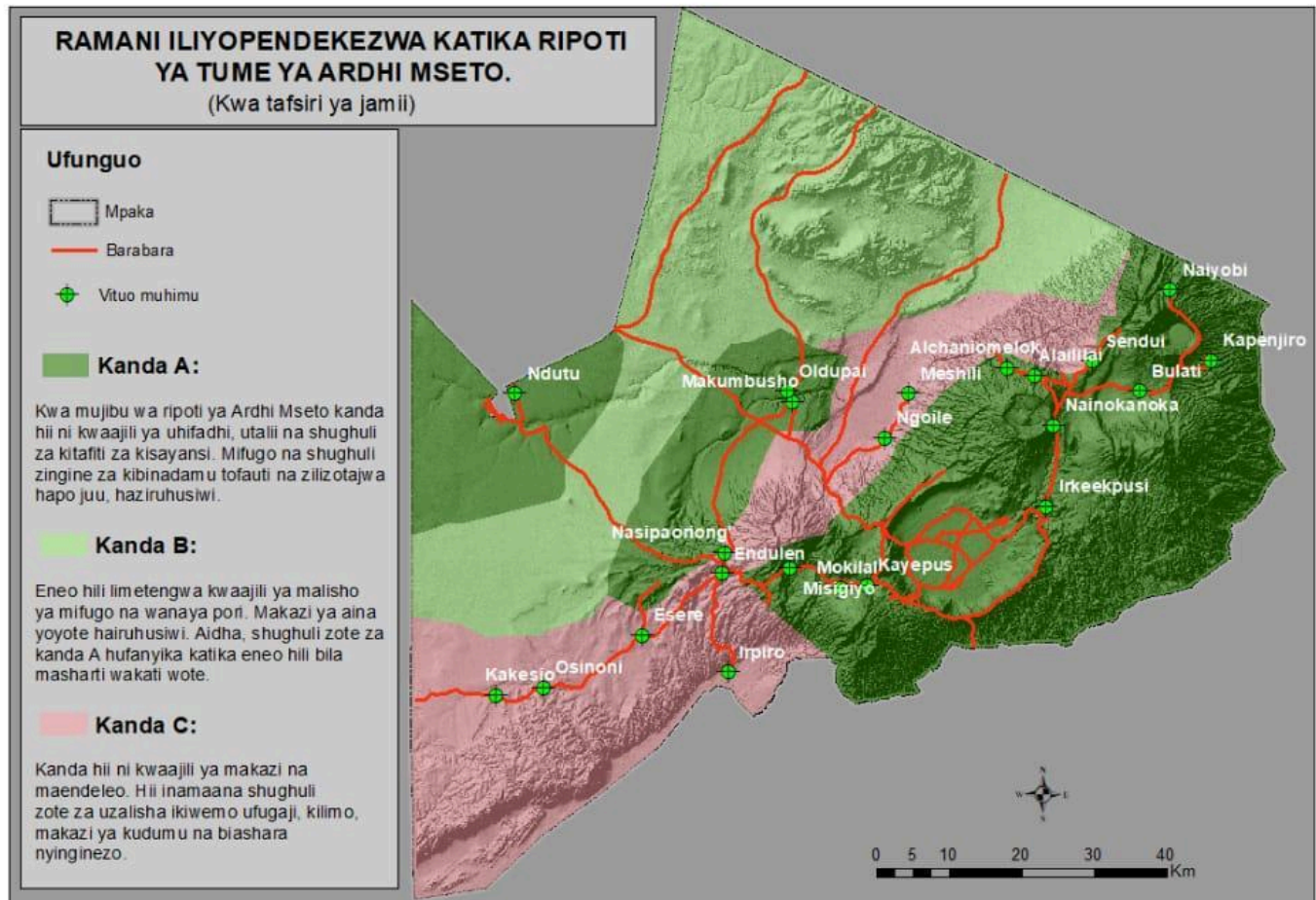
13. If the weeds are eradicated, allow small gardens, keeping the total cultivated land under 3%
14. Push for better control of livestock diseases
15. Eliminate disease in the water (especially at the dams)
16. Enlarge the maize supply program during times of drought. Start a Maasai-run maize bank program (in addition to the one that NCAA has).
17. Provide farm rental opportunities outside the NCA.
18. Disease control emphasis to be put on preventive medicine. Epidemiological Studies will be needed into livestock diseases and their impact on productivity.
19. Establishment of livestock markets in the NCA to combat unfair returns to pastoralists and government loss of revenue.<sup>64</sup>
20. Encourage active local participation in all levels of NCA management.
21. Become 'scientific' about drought predictions, have an 'early-warning system, and sell cattle accordingly.
22. Careful water development, including repair to existing systems, could ease both domestic and livestock management problems in the dry season, and improve livestock survival and milk production without causing environmental problems.
23. Transport and communications are a priority that will facilitate development of conservation education, tourism and of the livestock/grain exchange trade vital for Maasai subsistence in NCA.



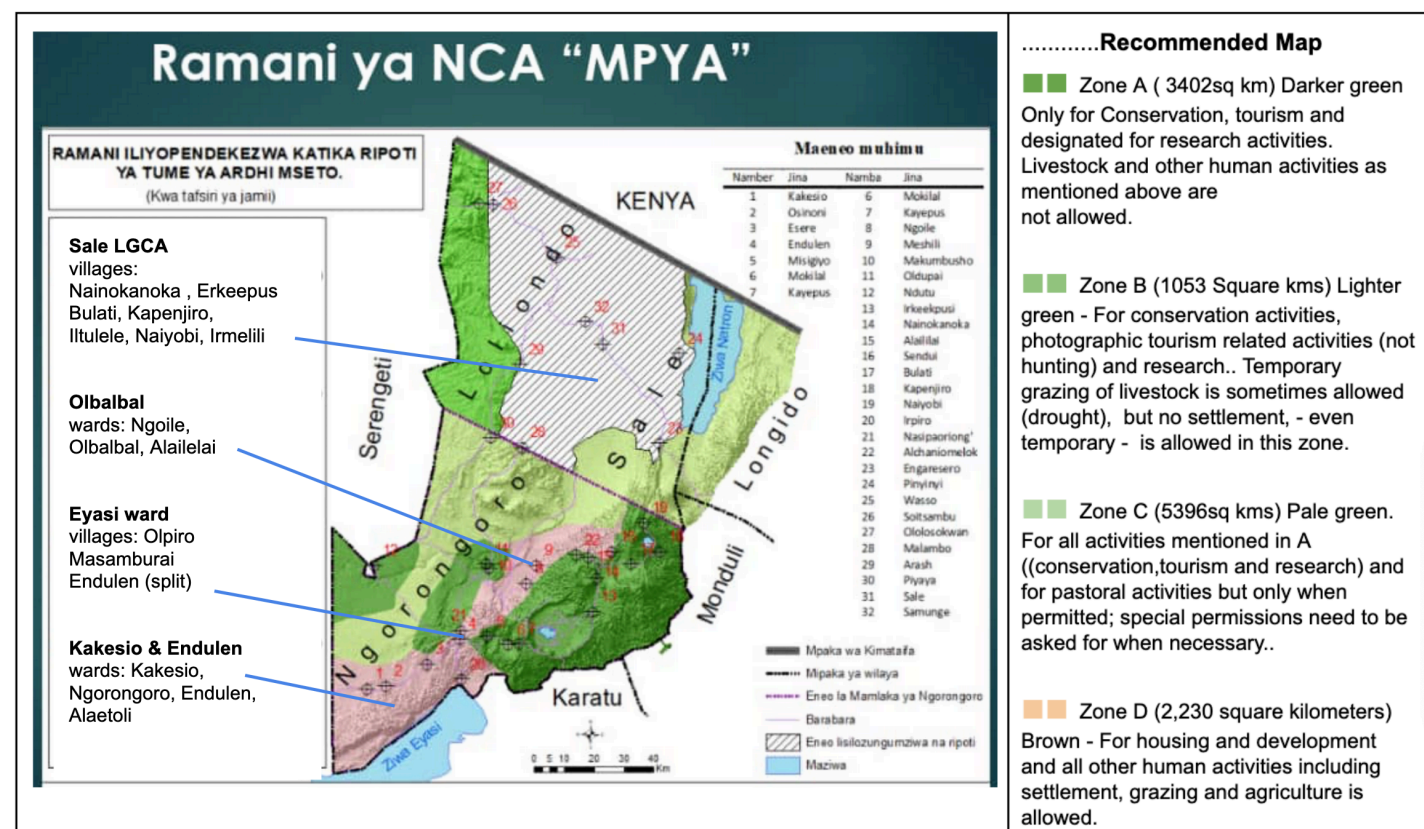
# August 2019 Proposed Resettlement Plan

Multiple Land Use Model analysis pg 104

## Ngorongoro relocation map



The villages on the map are shown in their present location



### .....Recommended Map

■ Zone A (3402sq km) Darker green  
Only for Conservation, tourism and designated for research activities. Livestock and other human activities as mentioned above are not allowed.

■ Zone B (1053 Square kms) Lighter green - For conservation activities, photographic tourism related activities (not hunting) and research.. Temporary grazing of livestock is sometimes allowed (drought), but no settlement, - even temporary - is allowed in this zone.

■ Zone C (5396sq kms) Pale green.  
For all activities mentioned in A ((conservation, tourism and research) and for pastoral activities but only when permitted; special permissions need to be asked for when necessary..

■ Zone D (2,230 square kilometers)  
Brown - For housing and development and all other human activities including settlement, grazing and agriculture is allowed.

NCA, which is located at latitude 3015'S and longitude 35030'E, is part of the Serengeti- Mara Ecosystem (SME), which is a cross border conservation area in East Africa. NCA covers **8,292 km<sup>2</sup>** out of 25,000 km<sup>2</sup> of SME. MLUM 2.2. NCA in the context of the Serengeti – Mara Ecosystem pg 7

The current NCA size is 8,293 km<sup>2</sup>.

Some WMAs (Wildlife Management Areas) may be added with extension of the NCA into Longido and Loliondo

- Loliondo Game Controlled Area (LGCA) (resident) Total LGCA: 4,000 km<sup>2</sup>
- Longido, Lake Natron to the north-east (7,756.76 km<sup>2</sup>)
- Mto-wa-Mbu to the east (1,214.7 km<sup>2</sup>)

There are rumors of plans to restrict the activities of people who are already there.

93,000 people will be crowded from an area of 8,293km<sup>2</sup> into an area of 2230km<sup>2</sup> + 462km<sup>2</sup> = 2692km<sup>2</sup> (one-third the size of the current NCA land allowed for livestock and development.) ... And they will be going to areas where there is less water, poor soil, fewer schools and health centers.

12,543km<sup>2</sup> = ■■ Zone A: 3402km<sup>2</sup> + ■■ Zone B: 1053km<sup>2</sup> + ■■ Zone C: 5396km<sup>2</sup> + ■■ Zone D 2,230km<sup>2</sup> + ■■ Sale: 462km<sup>2</sup>

But ■■ Zone D 2,230km<sup>2</sup> + ■■ Sale: 462km<sup>2</sup> = 2,692km<sup>2</sup>

The plan first expands the size of the NCA from 8,100km<sup>2</sup> to 12,083km<sup>2</sup> by including areas from Loliondo Game Controlled Area (GCA), already contested in the East African Court of Justice, and Lake Natron GCA. With its expansion, the new NCA reduces significantly the land available to the Maasai for pastoralism, settlements, and farming crucial to their livelihoods. This is particularly devastating given the severe food insecurity that the Maasai already face as a result of existing restrictions.<sup>75</sup>

| No. | Current Settlements and area                                                                                         |                                                 | Proposed settlements and area                                                                                       |                                          |                             | Remarks                                                                                                                                                                 |
|-----|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | Villages                                                                                                             | Area                                            | Villages                                                                                                            | Areas                                    | Community Development zones |                                                                                                                                                                         |
| 1   | Kakesio, osinoni, esere, endulen, alaetoli, nasporiong, misigiyo, kayapus, kaitekiteng, mokilal, oloirobi, loongojoo | Kakesio, Ngorongoro, Endulen and alaetoli wards | Kakesio, osinoni, esere, endulen, alaetoli, nasporiong, misigiyo, kayapus, kaitekteng, mokilal, oloirobi, loongojoo | East of endulen, osinoni, kakesio, eyasi | Zone A (Kakesio & Endulen)  | <ul style="list-style-type: none"> <li>• Settlement,</li> <li>• crop production,</li> <li>• grazing,</li> <li>• pasture establishment,</li> <li>• ecotourism</li> </ul> |

Misigiyo, half of Olbalbal and Ngoile, half of Endulen [will have to move] so that the ward is left without grazing or water, also half of Kakesio and Esere. ....(Participant "K" whatsapp)

|   |                                                                                    |                                      |                                                                                                     |                           |                   |                                                                                                                                                                         |
|---|------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | i. Ngoile,<br>ii. meshili,<br>iii. sendui,<br>iv. alailelai,<br>v. alchaneiomelock | Ngoile, Olbalbal and Alailelai wards | i. Ngoile,<br>ii. meshili,<br>iii. sendui,<br>iv. alailelai,<br>v. alchaneiomelock,<br>vi. nguruman | Olbalbal and Ngoile wards | Zone B (Olbalbal) | <ul style="list-style-type: none"> <li>• Settlement,</li> <li>• crop production,</li> <li>• grazing,</li> <li>• pasture establishment,</li> <li>• ecotourism</li> </ul> |
|---|------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

One plan is to move the residents of the following wards to Sale plains (Sale ward) as soon as possible: Nayobi, Nainokanoka, Alaililai, Ngorongoro (June, 2020).<sup>75</sup>

|   |                            |                                                   |                                                                                                                 |                                   |                       |                                                                                                                                             |
|---|----------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | LGCA (462km <sup>2</sup> ) | Excised land of 462km <sup>2</sup> from Sale ward | i. nainokanoka<br>ii. erkeepus<br>iii. bulati,<br>iv. kapenjiro,<br>v. Itulele<br>vi. naiyobi,<br>vii. Irmelili | Sale plains (462km <sup>2</sup> ) | Zone C (Loliondo GCA) | <ul style="list-style-type: none"> <li>• Settlement,</li> <li>• grazing,</li> <li>• pasture establishment,</li> <li>• ecotourism</li> </ul> |
|---|----------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|

Probably Nainokanoka, Alailei and Naiyobi have a total of 40,000 people. And there are already people there. Plus a former relocation to this area failed.

|   |                    |            |                                              |  |                |                                                                                                                                                                        |
|---|--------------------|------------|----------------------------------------------|--|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Olpiro, masamburai | Eyasi ward | i. olpiro<br>ii. masamburai<br>iii. endulen, |  | Zone D (Eyasi) | <ul style="list-style-type: none"> <li>• Settlement,</li> <li>• crop production,</li> <li>• grazing,</li> <li>• pasture establishment</li> <li>• ecotourism</li> </ul> |
|---|--------------------|------------|----------------------------------------------|--|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

In the extension, people are currently using the green areas for settlement and livestock.

Longido light green (Lake Natron) people are already living there

Loliondo (medium green) No settlements, some livestock allowed. 15,000 km<sup>2</sup> were taken by foreigners (OBC) in 2011

Grey stripes - Sale Ward - 462km<sup>2</sup> area is the excised land from Sale Ward. There are also people living there.

**Brown** The brown Area is proposed for development (people settlement and activities like farming)

Will probably end up with 70,000 people

**Brown** Olbalbal and Ngoile - 2230km<sup>2</sup> - 20,000 people already living there. Add 50,000 from NCA; also people of Endulen and Oloirobi will be as well

Add 30,000 from Nainokanoka to make a total of 50,000 people

**Brown** Endulen and Oloirobi already has 30,000 people already living there. Some people of Endulen and Oloirobi will be as well moved to brown Area

Neareso is a ward found near OldonyoLengai Mountain (Lengai/Mountain of God)

Some part of the Lengai is a part of Ngorongoro as a Geopark is in concern

# Problems with Eviction Proposed in August/September 2019

Among the Maasai participants in a WhatsApp group about “NCA Concerns”, not one participant had anything good to say about the relocation.

We were evicted from Pusimoru in Serengeti during the colonial system and today they want to move us to unknown areas ... is it really fair ?? While we are the same with other people in our country this seem to be UKOLONI MAMBO LEO (Neo Colonial) ..We have the right to live; we have the right to have small scale agriculture and other needs, but in 2008 NCAA prohibit agriculture in our ancestors land ...now days we remained only with livestock keeping ...is this right for Maa after doing all this bad for them??

Ngorongoro is surrounded by Maa - this is important for protection of our wildlife inside Ngorongoro because no roaming is allowed for people from outside the areas and this work done by the indigenous to ensure our land and our animals remain safe all the time.... (Participant “N” WhatsApp NCA Concerns group)

“Maa community: we are facing land alienation because of our respect and honour of our wildlife and environmental conservation. Let’s say enough is enough.”

The population in Tanzania has grown very high ,nowadays the population is around 60 million and the government is happy that it is a blessing from the God to have such population, no limitation for it, especially now days ...this is according to our president JPM.

The population of people in Ngorongoro goes parallel to [the] population in other parts of Tanzania so how come for our land to limit the population while [they] allow for other areas in [the] same country?? ..(Participant “N” WhatsApp group NCA Concerns)

The population of Ngorongoro community grows slowly compare [compared] to the population of wild animals... Now days it's totally different [different] because the area covered by wild animals in Ngorongoro is bigger than the pastoralist activities [that] take place .....(Participant “N” WhatsApp group NCA Concerns)

The government and NCAA organization management should know that to move someone to a land with another population [that] may cause the conflict btn [between] the evicted one and the landowner .. The population of animal in ngorongoro increase [increases] more compare [compared] to other PAs ....This enough evidence for people who visit there ...for instance you may look the population of Rhino previous years compare with numbers of rhino found in ngorongoro crater nowadays....how [does] population of local community hinder conservation? ..(Participant “N” WhatsApp group NCA Concerns)



Compare between wild animal in ngorongoro conservation area with other places: animal in Ngorongoro around the community settlement and in the forest living friendly with people, the herbivore like zebra during the night, early the morning and late evening must go near maasai bomas for their safety ...and this every one know ..so how [do] maasai became enemies of wild animal while their [they] protect them during harsh and normal time???? In other areas with people, [but] no animal around. ..(Participant "N" WhatsApp group NCA Concerns)

We need to learn How to protect wildlife without using guns and evicting [an] innocent community in their Native Land. The Maasai community consider Ngorongoro as Home Land and not as a protected conservation area. ... (Participant "M" WhatsApp)

"It is important to have land for farming and grazing if possible but not evict people from Nainokanoka ward more than 35,000 people to the olbalbal which is not fertile and not even enough for the residents of that area"... (Participant "O" WhatsApp NCA Concerns)

So in 2018/2019, Dr Manongi came with fake promise , saying it's inhuman [that people] cannot cultivate by their own and hence they cut into pieces the NCAA land and give so portion for maasai residents and name it the piece of land development zonal where agricultural can take place.

There us shortage of water there; the land is not fertile; only sheep can do well.

For instance the places that are far from the mountain use the very salt water from Oldupai Gorge. My village for instance people uses salty water even now.

The clean water is found about 6km [away], which takes 12km to go and return while the salty water is 250/300 meters from home. And sometimes the clean is not reliable due to overuse, and it's used by both people and livestock. ....(Participant "O" WhatsApp)

The NCAA Conservation Commissioner, Dr Freddy Manongi, said the laws to protect the Ngorongoro area are too stringent, and should be reviewed since they are outdated and derail people's development." He wants to allow villagers to continue with their agricultural and livestock keeping activities.

"The laws prohibit villagers from cultivating in the area, but we all know that agriculture is the key to development,' he said. He said currently there are many conflicts between NCAA and the villagers due to increased population as well as lack of grazing land. He said the area had 8,000 people in 1959 but the number increased to 93,000 in 2017.

In 2018 the Tourism and Natural Resources Minister Dr Hamisi Kigwangala formed a special committee tasked with proposing a better land use plan permitting villagers to continue with farming activities. The report has been handed over to the minister before it is taken to the president," he stated.

However, traditional leaders at the area have complained : "We were not given a chance to present our opinions on the matter. The prepared report which will later be presented to the president does not include residents' opinions."<sup>16</sup>

*Manongi is not realistic on this, He just want to justify eviction (Reallocation and zoning) using soft and promising words (agricultural and settlement development)... if the issue was little land size to accommodate population, saying the population has increase meaning the 8000km is not enough - how about 3000-5000km to be occupied by whole population of 93000? If he is real, let him convince the authority to allow the subsistence farming like that of 2000-2007.*

*People were enjoying sufficient food by planting on their own, cattle keeping and freedom of movement within and out of NCA.*

*It would be better to continue with the old MLU of 2006-2016. To us indigeous people it was very okay than what now which complicates.*

*Maybe to my eyes, the threatening habit of the current Conservator may be contributed by lack of political will and communication between the management and indigenous leadership (Councilors and NPC leadership). (Participant "O", Whatsapp)*



## September 2019 Proposed Resettlement Plan

The Sept 2019 MLUM, marked 'FINAL', rudely leaves out important resettlement information. For many wards, it does not say where their proposed resettlements are.

And, what does this mean: **"34,632 (20,000 in NCA & 14,632 in Gilal meirugoi) people" .... "in the new proposed NCA."** Does this mean the 20,000 people in NCA have to move? And what about the 14,632 in Gilal meirugoi?

### **The October 2019 MLUM listed the same 5 options as the August 2019 MLUM (but with slightly different wording)**

#### **MLUM Oct 2019 pg 93 .. 1. Conclusion ..**

Other stakeholders' groups suggested five different options including;

1. (i) maintain status quo
2. (ii) Annexing some areas on the periphery of NCA to resettle humans and livestock;
3. (iii) Demarcating NCA into two distinctive zones - one for humans and livestock and the other for natural resources conservation;
4. (iv) Reducing humans and livestock to maintain limits of acceptable use; and
5. (v) Disregarding MLUM and relocate people and livestock outside NCA (Table 18).

### **But then there were some changes made:**

**The Team of Experts merged suggestions 2, 3 and 4 above and formed one option of maintaining MLUM with adjustments (Appendix 1).**

**Under this option it is suggested that some areas from Loliondo, Longido (Lake Natron) and Monduli (Mto wa Mbu GCAs) be annexed to the current NCA.**

**Relocation of immigrants outside the area and voluntary resettlement of indigenous residents be conducted to maintain only 34,632 (20,000 in NCA & 14,632 in Gilal meirugoi) people with livestock totaling 189,264TLUs (29,264 TLU from Gilai) in the new proposed NCA.**

Analysis revealed that with this option, LHUs accounted for by wild herbivores will increase from 121,742 that was estimated in 1994 (Boone *et. al*, 2002) to approximately 186,099TLUs because by assuming that all other variables will remain constant, the optimal carrying capacity for both wild and domestic herbivores will expand from 250,925LHUs that was estimated in 1994 (Boone, et. al., 2002) to 375,363LHUs. In order to maintain livestock composition of the 1960, small stock population should be maintained at about 153,800 and cattle at around 248,410 animals accounting

for 6% and 94% of total 189,264TLUs respectively.

**An estimated human population of 20,000 people in NCA (about 5,000 households) and their livestock will continue to reside in the new proposed NCA with strict control according to the four suggested zones and one sub-zone.**

**In the annexed area of Lake Natron, about 14,632 people will be accommodated at Gilai Meirugoi ward (about 3,000 households), some households will also be included from Engaresero and Pinyinyi villages after annexation from Ngorongoro district.**

Where are these 20,000 people now and will they move somewhere else in the NCA?

**From MLUM Oct 2019 pg 103 & 104 -**

TLUs per capita will, therefore, be 8.0 for the entire period up to 2038, implying that all food requirements will come from livestock. Nonetheless, because some locations within the proposed settlement and development zone can support small-scale crop production, with this option it is possible for future NCA residents to produce agricultural food particularly legumes and vegetables to complement pastoral diet.

~~~

If the proposed scenario of status quo was to be adopted and assuming that total TLUs would remain at 228,955 as it was in 2017, the TLUs per capita will drop to 1.0 by 2038. **This means that supplementary food to pastoral community in NCA will increase to about 87%, which is far worse than the current situation of 70%.** Even if the area was left solely for livestock and an average annual human population growth rate remains at 3.5%, the population will increase over two-fold to about 200,000 people by 2038. TLUs will grow up to 1,150,000 by 2032, but thereafter start to decline and reach 800,000 TLUs by 2038 due to rangeland degradation and deterioration. If the wish of the Government is to have perpetual NCA, the indigenous pastoralists and their representative organ (NPC), the option of status quo will not be feasible to sustain coexistence of people, livestock and wildlife.

Again, the figure of 70% is way too high. Not that many people are getting supplements.

Predictions of the option that suggests **abolishing the model indicated that resettling all people and livestock outside NCA and leave the area exclusive for wildlife and habitat conservation would be costly, availability of land to accommodate about 100,000 people may be a challenging endeavour and the exercise may face antagonism from those identified for relocation and the hosting community, particularly in areas of culture differences as was experienced with 159 families that were resettled at Jema Village, Salei Division in Ngorongoro District between 2007 and 2010. ...MLUM Pg 94**

PROPOSED MANAGEMENT ZONES, IMPORTANCE AND USES

N o.	Area	Management zone	Ecological/ Economic Importance	Uses	Remarks
1	Northern Highland Forest Reserve (NHFR) • Ngorongoro crater • Olmoti crater Empakai Crater	Core conservation zone	• Conservation • Wildlife refuge • Water catchment	• Tourism development • Research and training • Conservation	• Restricted to communities • Protection of endangered and threatened species esp. rhinos and elephants and plants
2	Oldupai Gorge and Laetoli footprints	Core conservation zone	• Major cultural, historical and archaeological sites • Geopark • Conservation	• Research and training • Tourism development • Conservation	• Restricted to communities
3	Lake Ndutu/ Masek Basin	Core conservation zone	• Conservation • Water catchment • Marshes and feeding area for water birds	• Tourism development • Research and training • Conservation	• Restricted to communities
4	Engaruka historical site	Core conservation zone	• Cultural, historical (ruins) and archaeological site • Geopark • Water catchment	• Tourism development • Research and training • Conservation	• Restricted to communities

N o.	Area	Management zone	Ecological/ Economic Importance	Uses	Remarks
5	Selela village forest reserve area	Core Conservation zone	• Conservation • Water catchment • Wildlife corridor especially elephants	• Tourism development • Research and training • Conservation	• No settlement • No grazing • No crop production • Protection of migratory route, esp. elephants from NCA to Manyara and Tarangire NP is crucial. • Reducing human-wildlife conflicts.
6	Lake Natron and its escapement and basin (Gilai meirugoi ward)	• Transition zone. • Settlement and development (Magadi ni, Londolo & Meirugoi villages)	• Water catchment • Cultural, historical and archaeological sites • Geopark • Flamingo breeding sites • Habitat for rare wildlife species – e.g. Oryx • Oldonyo Lengai active volcanic mountain • Conservation • Hot springs • Water falls • Foot prints	• Research and training • Tourism development • Conservation • Livestock grazing • Settlement	• limited settlement • seasonal grazing • controlled crop production • Protection of L. Natron against siltation • Protection of Flamingo breeding sites

N o.	Area	Management zone	Ecological/ Economic Importance	Uses	Remarks
7	Loliondo GCA (1,038 km ²)	Core conservation sub zone	• Water catchment • Buffer zone to SENAPA and NCA • Breeding and dispersal area • Wildlife migration route • Conservation	• Tourist development • Research and training • Conservation	• No settlement • No grazing • No crop production • Tourism activities – e.g. trophy hunting
8	Loliondo GCA (462 km ²)	Transition zone	• Wildlife migration • Conservation • Tourism	• Livestock grazing • Conservation • tourism	• Reducing human-wildlife conflicts
9	Oldonyo Gol & west of Kakesio	Transitional zone	• Buffer zone • Maasai pastoralists • Datoga • Hadzabe	• Seasonal livestock grazing • Conservation	• No settlements • No crop production • Limited uses – e.g. seasonal grazing
1	Eastern part of Endulen, Osinoni, Kakesio and Eyasi	Community development zone	• Datoga agro-pastoralists • Hadzabe hunter-gatherers • Maasai pastoralists	• Settlement/registered villages • Livestock grazing • Establish pasture development programme • Crop production • Community based tourism	• Human population growth and infrastructure development controlled within limits of acceptable use.

9	Nainokanoka	- Nainokanoka, - Erkeekpus, - Bulati	None	None	Nainokanoka Erkeekpus are abolished
10	Naiyobi	- Itulele, - Naiyobi, - Kapenjiro	None	None	Naiyobi ward and its villages is abolished because of risk of active volcano of Lengai
11	None	None	Gilai meirugoi	- Magadini - Meirugoi - Londoluo	Ward is annexed from Longido district

The Proposed Resettlement Plan is a mystery! Wards Nainokanka, Erkeepusi, Alaetoli, Oloirobi, Kayepus, Misigyo, Kaitekiteng, Loongoijoo, Ngoile, Meshili -- are being abolished.

STATISTICS

Economic status (2013)

Poor of the poor - only 0-2 livestock - 4475 households

Poor - 3-4 livestock - 5933 households

Poverty 5-6 livestock - 4512 households

Middle - 7-20 livestock - 2922 households

Rich - 20+ herds - 2018 households

89.1% are unemployed 0.6% are the % of employed in formal sectors.

Education level

73.4% (64347) of residents has no formal education (illiterate)

31.1% of the children who supposed to be in school but are not even registered/enrolled to start schools

And only 0.3% of residents have a university education

Dependency

Children 0-4 were 16284 18.5%

Child and youth 5-17 were 33 177 = 37.7%

Energetic 18-59 were 35187 account 40.1%

Old 60+ were 3203 =3.6%

Analysis on this - There is a high number of children and youth who need both support and improvement for their development and society wellbeing. Investing in youth is very paramount.

60+ yrs are very few and hence there is a need to intervene in this area esp by provision of free medical facilities.

Estimated household size of 4.5 (NBS, 2017). (MLUM 5..2.6)

Population Census Ngorongoro District (2002)

2002-08-01 129,362

2012-08-26 174,278

Wards of Ngorongoro District - Population as of 2002:

Oldonyo-Sambu 3,256

Arash 8,503

Digodigo 10,831.

Enduleni 11,738.

Kakesio 4,135

Malambo (no population given)

Nainokanoka 15,606. **Irkeepusi**, Nainokanoka, **Bulati**, Naiyobi, **Kapenjiro** and **Iltulele**.

Nayobi 11,011... Nayobi villalge

Olbalbal 7,561 ... Meshili, Ndoile and Endulen

Oldonyo-Sambu 3,256. Lemanda, Landalai, Losinoni, Oldadai, Nambere,Mukulat, Kimunyak,

Oldonyo Sambu and Mringa ????

Orgosorok 16,064

Ngorongoro 9,807 Oloirobi and Misigyo/Moklari

Pinyinyi 5,574.

Sale 2,904.

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Addendum

Ngorongoro Crater has the densest known population of lions in the world

[People have shaped most of terrestrial nature for at least 12,000 years](#)

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