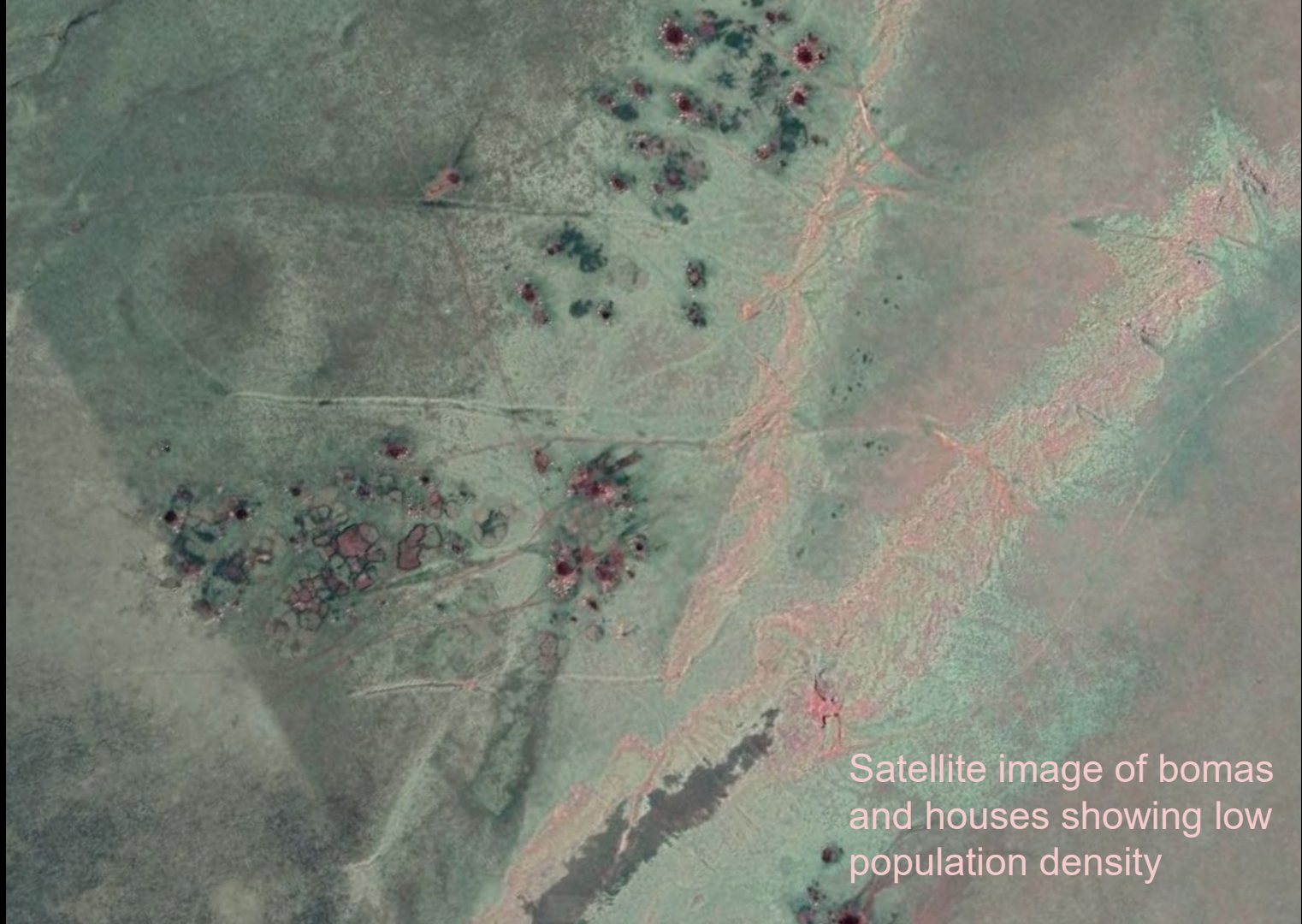


Maasai Harmonial Development & Sustainability

Girls Education and Women's Health







Satellite image of bomas
and houses showing low
population density

Ngorongoro Crater



Mapena, Rhino Ranger

A member of the Maasai Harmonial Team



Tending injured rhino

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.

About 25,000 large animals are found in the Ngorongoro Crater, which contains the highest density of mammalian predators in Africa: lions, wild dog and cheetah. Also endangered black rhino, and elephant.

Ngorongoro is the calving grounds for over 1 million wildebeest of the Great Serengeti-Mara Ecosystem.

This is in contrast to most of the rest of the world where the average size of wildlife populations has plummeted more than $\frac{2}{3}$ in less than 50 years, according to WWF.

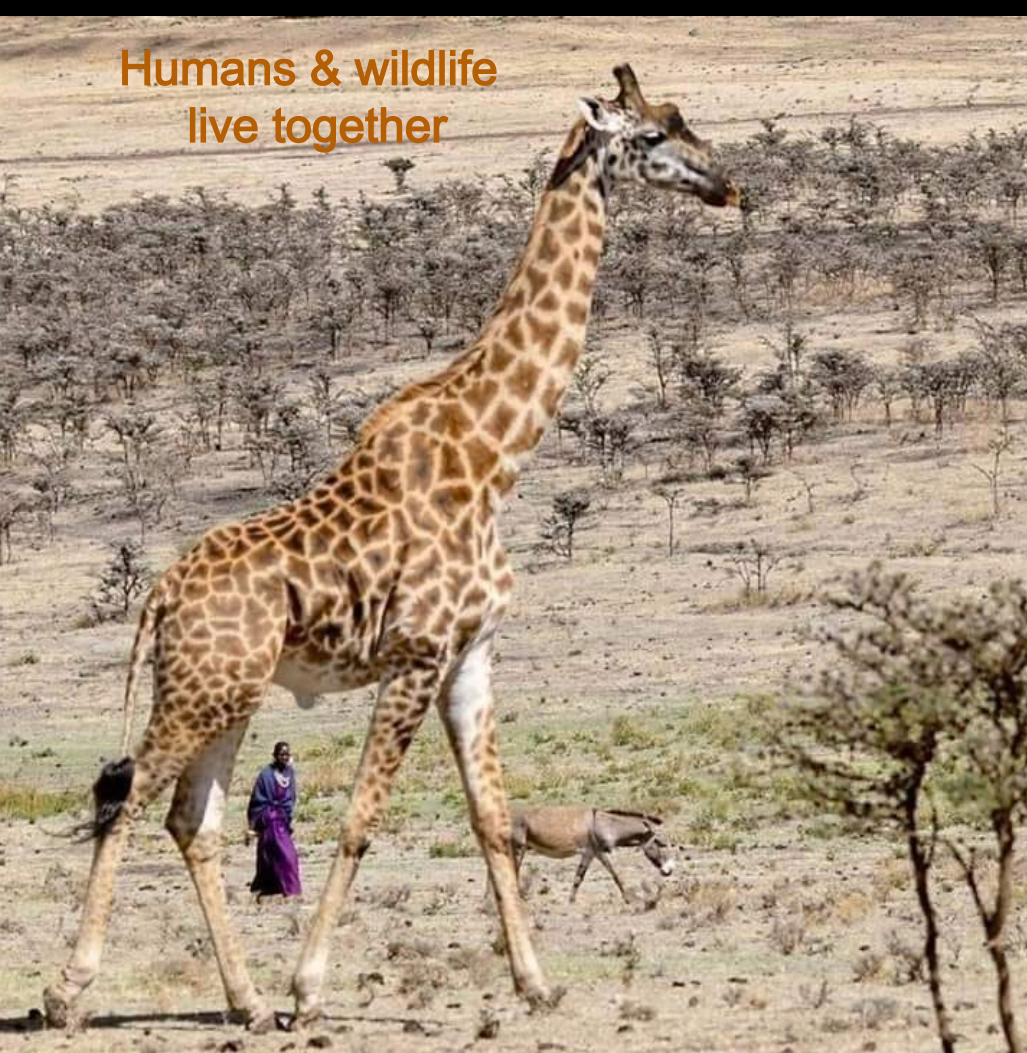


Typical homestead scene



Low population density

Humans & wildlife
live together



Maasai can live with wild
animals, but tourists can't.





Zebras can graze with cows and wildebeest,
but cows get a disease from wildebeest.

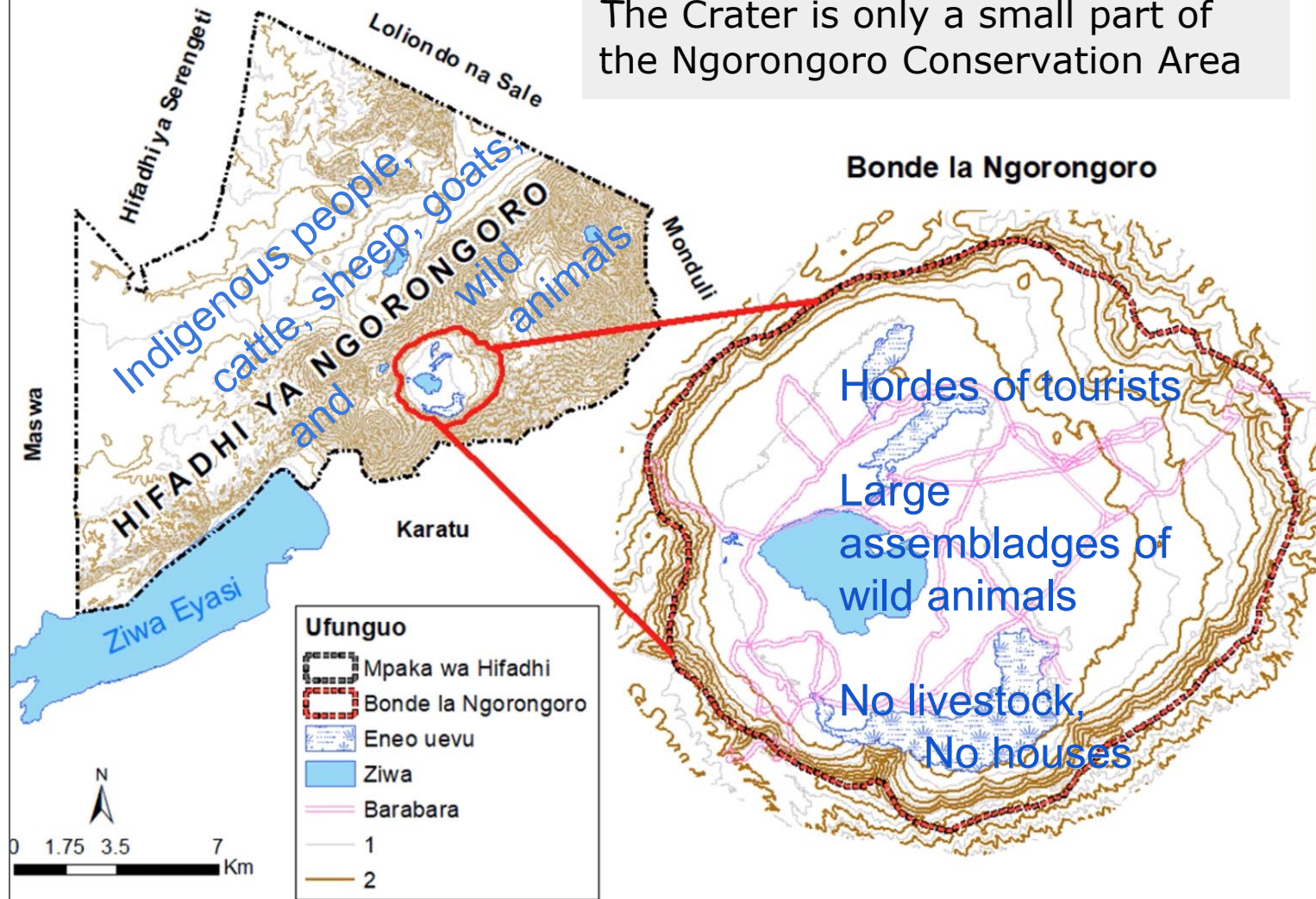
Ngorongoro Wildebeest live in the crater and stay in the crater, but Maasai people are not allowed to live there or graze their cattle there



In 1975, the Maasai were evicted
from the Ngorongoro crater.



The Crater is only a small part of the Ngorongoro Conservation Area



In February 2016, my partner Ben Parks went to Tanzania to visit Mapena, a former student that Ben sponsored in wildlife college. Mapena is a Maasai whose family lives in the Ngorogoro Conservation Area.

When Ben arrived at Mapena's village, they had a big ceremony, and most of the village turned out. The village elders presented Ben with a list of their challenges and a women stood and asked for family planning. - to my amazement!



OUR CHALLENGES

We of the XXXXXX Community have a lot of challenges, but the main ones are these:

a) **Education / Nursery school**

"We would like to have a sustainable nursery school which make our kids study every day and in a good environment." Youth getting an education: Help us get good educated people like Mapena

b) **Poverty: no source of income**

"We request that you help our Mothers / Women to get sources of income (beads) so that they can fulfill their basic needs. Empowering women with a source of income will help our development increase."

c) **Health care**

"We would like to have a dispensary which will make our people to be treated near their home because it will save our lives like our Mothers and kids who suffer a lot." Family planning to help Mothers (and babies) from suffering.

d) **Food Problems** (no cultivation)

e) **Cattle disease** (ticks and worms)

f) **Water problem**



Women dressed for ceremony



Will these dancing girls go to school or get married?





Child brides who are married to older men lack the negotiation skills and the confidence to assert their needs to their husbands.

They are isolated and vulnerable. Even where family planning services are available, young brides are difficult to reach with such support




90% of births to adolescent girls in the developing world occur within a marriage or union.

Married adolescents have the lowest use of contraception - and the highest levels of unmet need.

Complications of pregnancy and childbirth are the **leading cause of death** to girls ages 15-19



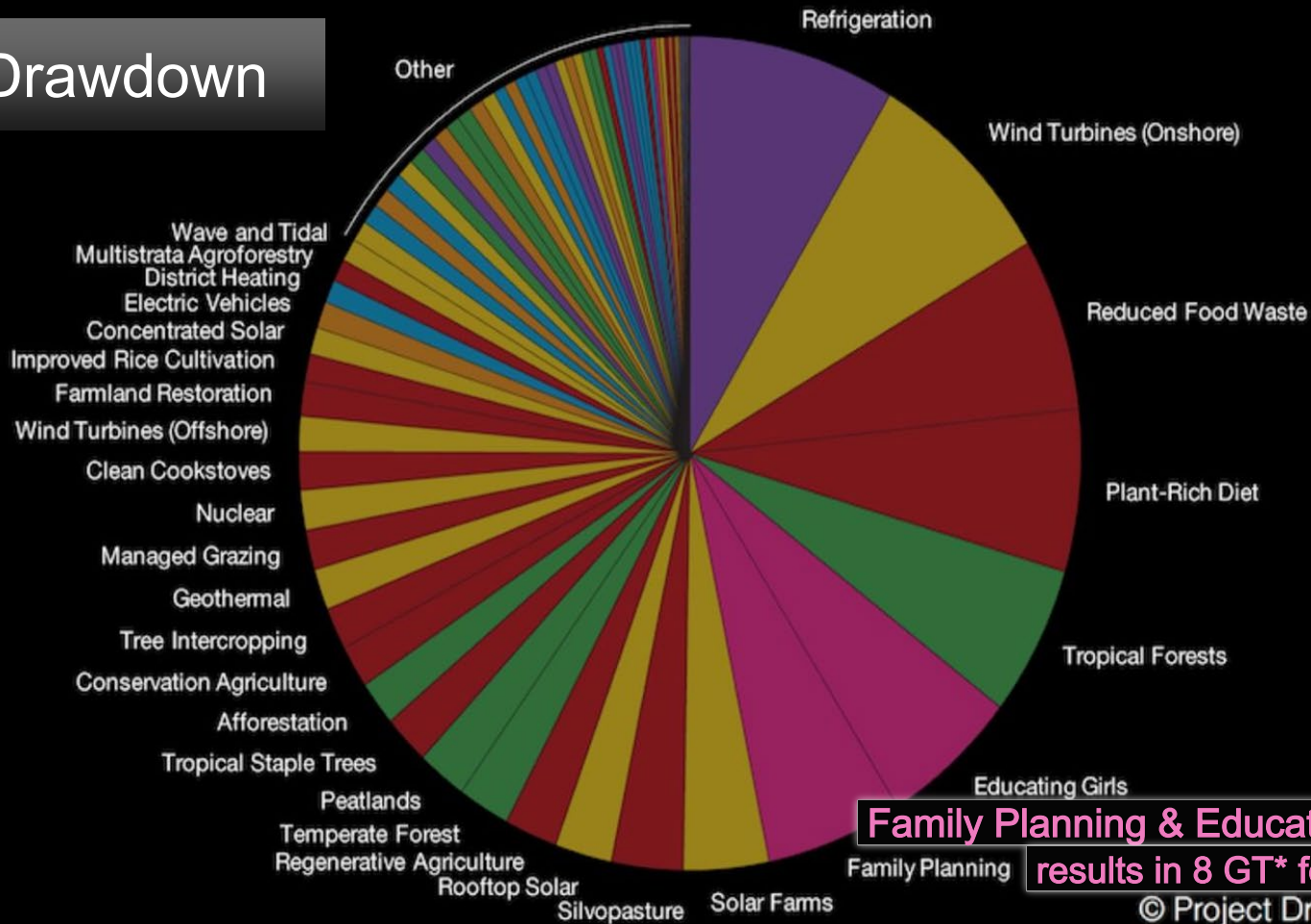
A world map with a blue ocean and green/brown landmasses, showing the continents of North America, South America, Africa, Europe, Asia, and Australia. The map is centered on the Atlantic Ocean.

With no reduction in child marriage, high fertility rates alone will raise the global number of women married as children to 1.2 billion by 2050*

***Girls Not Brides**

Drawdown

100
Solutions
to reverse
Global
Warming



Family Planning & Educating Girls
results in 8 GT* fewer emissions

© Project Drawdown, 2017

* 8 billion metric tons

Thanks to Population Connection for being the first population organization to make a strong connection between Population and Girls Education

FAMILY PLANNING AND GIRLS' EDUCATION IN THE SAHEL

The G-5 Sahel countries'* population is expected to more than double -from 85 million to nearly 200 million people- by 2050.

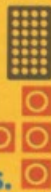
This is a conservative estimate which assumes a steeper decline in fertility than these countries experienced in recent decades.

*Mauritania, Mali, Burkina Faso, Niger, and Chad

Birth rates in the Sahel are among the world's highest: an average of 5.7 children over a woman's lifetime.



1 in 4 women surveyed in the Sahel would like to have fewer children or space out births but lack modern contraceptives.



The median age of marriage is around 16 in Niger, Chad, and Mali. About 40% of women give birth before age 18.



Only 3-6 girls out of every 10 complete primary school in Mali, Chad, and Niger. Secondary school completion is very low nationwide: 3 of the 5 countries have completion rates below 30%.

If the Sahel's population grows as projected, just maintaining (let alone improving) its current per capita GDP, school enrollment rates, and health care access would require 11% annual GDP growth.

For [an additional] \$1.3 billion annually, the donor community can meet the remaining unmet need for family planning and girls' education across the Sahel. This will help slow population growth and ease the humanitarian caseload in decades to come. Of that additional \$1.3 billion needed, just 8% (\$107 million) would be sufficient to meet the unmet need for family planning in the region.

THE SAHEL



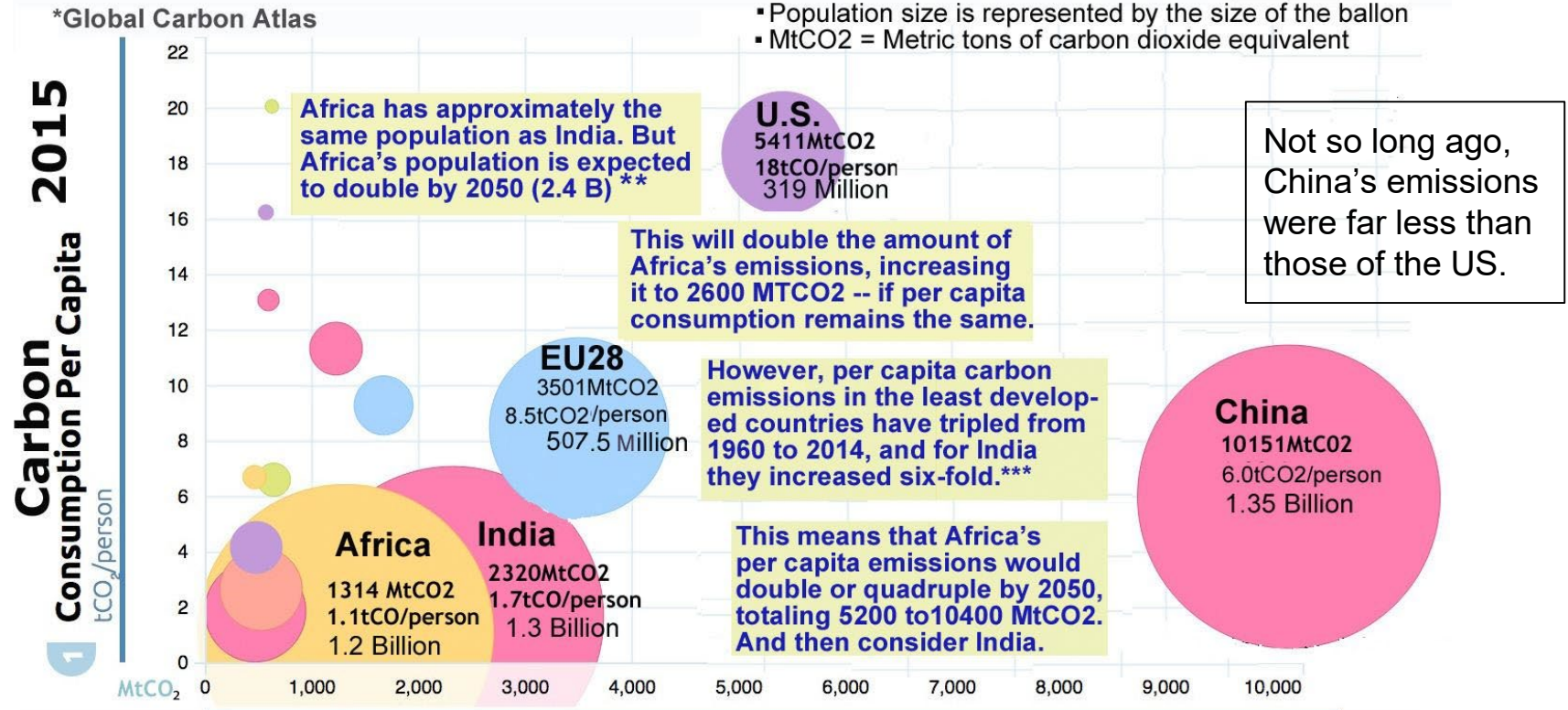
= Ecological zone of the Sahel

Source: UNICEF (2021), *A Future for the Future: Improving Girls' Education and Family Planning for Development and Security in the Sahel*, [unicef.org/resources/a-future-for-the-future](https://www.unicef.org/resources/a-future-for-the-future)

The Developing World is catching up on emissions;

- Why population matters

"Developing nations, where most of the population growth is happening, are where consumption is increasing the fastest." ... Michael Brune, Sierra Club





FUTURE DEVELOPMENT

Climate change, fertility and girls' education

Homi Kharas · Tuesday, February 16, 2016

FUTURE DEVELOPMENT



Financing to developing countries for climate change has been promised with a publicized target of at least \$100 billion per year.

It is education, or more specifically girls' education, that is far more likely to result in lower carbon emissions than a shift to renewables, improved agricultural practices,

urban public transport, or any other strategy now being contemplated.

The difference between 0 years of schooling and 12 years is almost 4 to 5 children per woman.

Aid commitments for education projects are about \$13 billion annually.

\$46B more is needed for Education & Family Planning

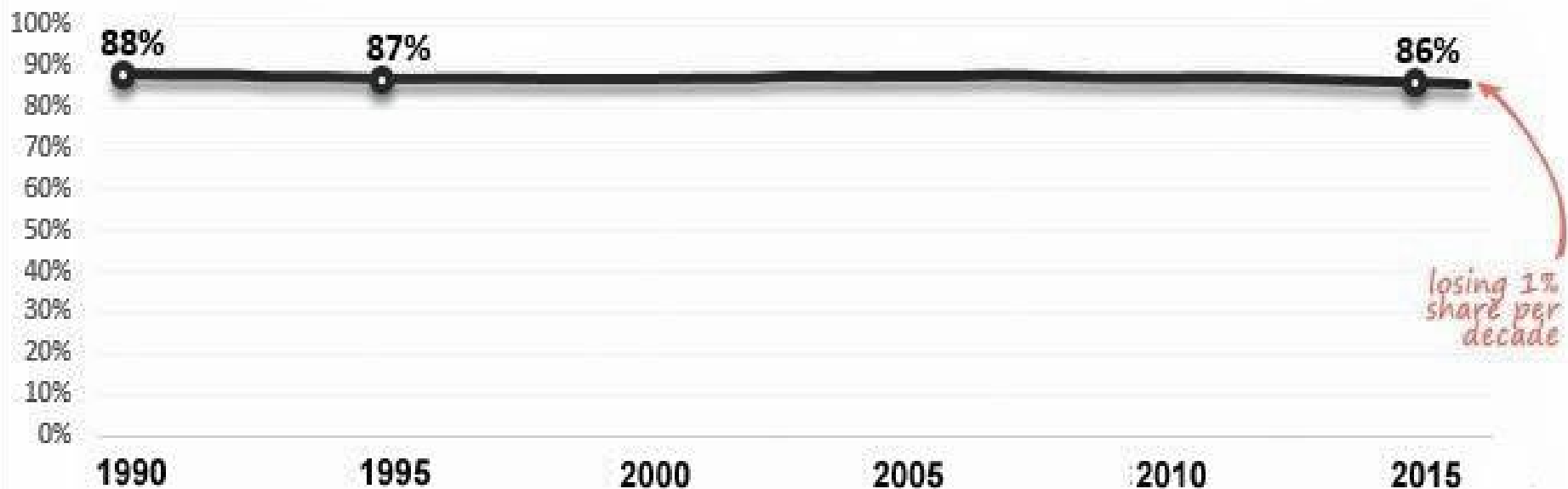
According to the United Nations Educational, Scientific, and Cultural Organization, by closing an annual financing gap of **\$39 billion**, universal **education** in low- and lower-middle-income countries can be achieved. It could result in 59.6 gigatons of emissions reduced by 2050. ... Drawdown.org

Enough funding to meet the unmet need for **contraception** would be **\$9 billion** per year (some part of it is already funded).



How successful have we been in curtailing Consumption?

FOSSIL FUEL SHARE OF GLOBAL ENERGY



GLOBAL FOSSIL FUEL CONSUMPTION, 1990 - 2016. Percent of total energy consumption. SOURCE: Sum of Oil, Gas and Coal consumption vs total energy in BP Statistical Review of World Energy June 2017. CHART by Barry Saxifrage at VisualCarbon.org. June 2017

Language Barrier

Only 10% of Tanzanians speak Swahili (the national language) as their native tongue. This barrier keeps most pastoral students from entering secondary school.

Such barriers exist in many remote areas of the developing world where fertility rates are highest.

Only 50% of students pass the National exam to get into high school, where classes are taught in English.



These girls failed their national exam, so they went to a special school that caught them up in English so they could continue with their education.

Most parents cannot afford the annual cost of \$500 to send their daughters to school.

In preschool, kids learn Swahili as a second language.

Without preschool, success in primary school is difficult and passing the exam to get into secondary school is rare.



After the new classroom was built, we had 120 preschool kids in a classroom built for 45

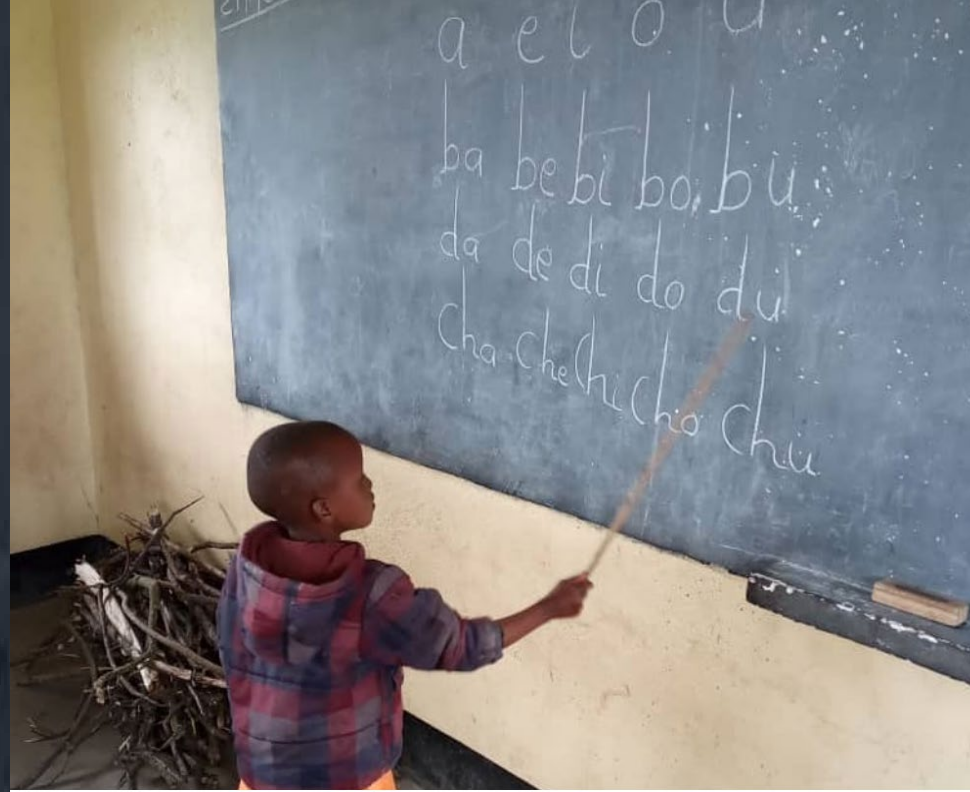
We serve porridge for preschool lunch



A child
learns
better with
food in her
stomach.



\$300 a month to feed 120 kids lunch = \$2.50/child/month



Phonics lesson.
Woman Preschool Teacher.
Salary \$75/month



Former
preschool
classroom

To encourage more kids (and thus more girls), we bought uniforms for preschool and primary students.

In addition, the older primary kids started going to a boarding school.



Uniform cost: \$28 each

Primary ages 7-8



Younger Primary kids are too young to go to boarding school.

85 of them walk to and from school 8 miles every day.

They need 2 new classrooms near their community.

(they are posing by the preschool classroom)

Sunrise: Walking 4 miles to school





When it rains, it pours



Also these students sometimes have to walk in rainy cold weather. So we bought them rain boots and warm sweaters.



Cape Buffalo

When early primary students walk to school, there are aggressive wild animals on the way.

This affects how many girls go to primary school and beyond.

Our Students	Boys	Girls	Total
Preschool	45	40	85
Primary			
Class One	38	10	49
Class Two	38	13	51
Class Three	26	11	37
Class Four	15	10	25
Class Five	12	8	20
Class Six	17	13	30
Class Seven	8	7	15
TOTAL STUDENTS			312

38 boys and only 10 girls

\$5,000 Classroom



We found this **\$5,000** classroom in another area.

The current preschool classroom is too costly at **\$16,000**

But, can they get a permit to build it? Permits are being refused, due to threat of eviction





Secondary Students are off to schools far away - a journey of two nights at the cost of \$80/trip with three school breaks a year. Few parents can afford this

Menstrual Pads keep girls in school

Without pads girls miss school 4-5 days a month



Here are our girls with their new reusable menstrual pads. There are still many girls that need them.

Donations would be very welcome. **DONATE here:** bit.ly/MHDSdonate . The pads are only \$4.31 for a pack of five, and should last for a year or more. **\$431 would help 100 girls stay in school.**

Menstrual pads will also keep girls from getting pregnant: they won't need money from their boyfriends to buy pads.

Four Girls in College



Naney wants to study
Tourism



Manyarai wants to study
Community Development



Einoth is in her 2nd
year of Tourism school



Nang'utut wants to
study Laboratory

Measurements of Success

When our partner organization built preschools near communities, children started learning Swahili prior to going to primary school.

The pass rate from primary to secondary school increased from 10% to 67.5% from 2011 to 2016

The percent of girls from our community going to school rose from 38% in 2015 to 82% in 2018.

This year: Primary grade 7 girl students have taken mock exams for high school, and our students have the highest scores in their class, and they have been selected as student leaders - both boys and girls.



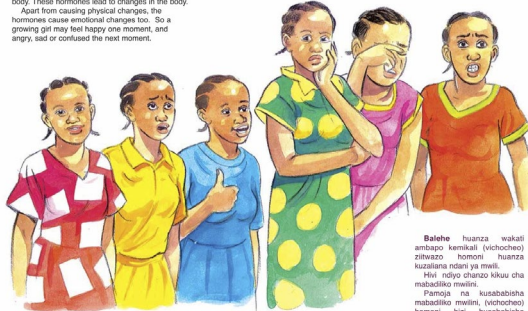
We made a family planning video in 2016



and a girl's puberty video narrated by Grace, our medical student, who is now a doctor



Puberty starts when extra amounts of chemicals called "hormones" begin to be produced in the body. These hormones lead to changes in the body. Apart from causing physical changes, the hormones cause emotional changes too. So a growing girl may feel happy one moment, and angry, sad or confused the next moment.



Balehe huanza wakati ambapo kemikali (vichocheo) zilizazo homoni huanza kuzalana ndani ya mwili. Hii ndiye chanzo kikuu cha mabadiliko mwili. Pamoja na kusababisha mabadiliko mwili, (vichocheo) homoni hizi husababisha mabadiliko ya hisia.

<https://youtu.be/LLWZG2AKsBE>

3

<https://youtu.be/plWV3Riwq8>

The Family Planning video was a success!

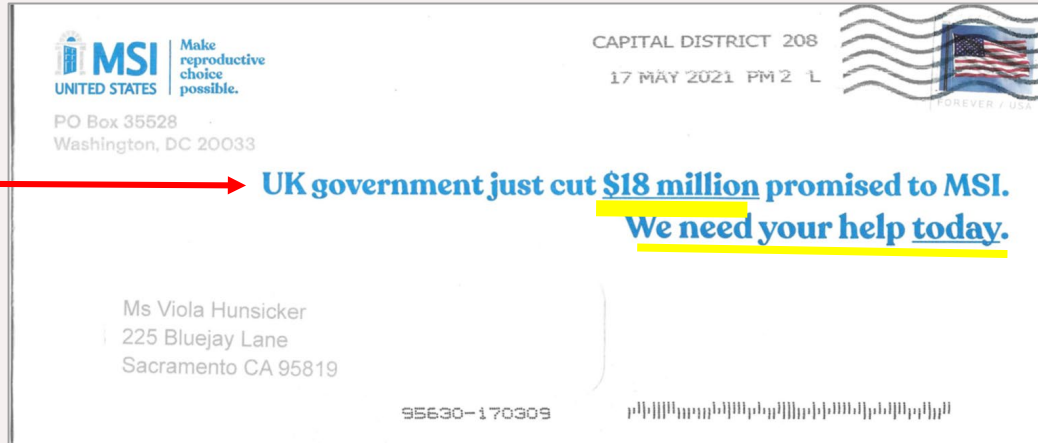
The video was shown in our community and neighboring villages.

In August 2016, when Marie Stopes came with their mobile family planning clinic, 13 women from our community, plus 10 women from nearby villages, walked four miles to get family planning methods.



But!

May 2021



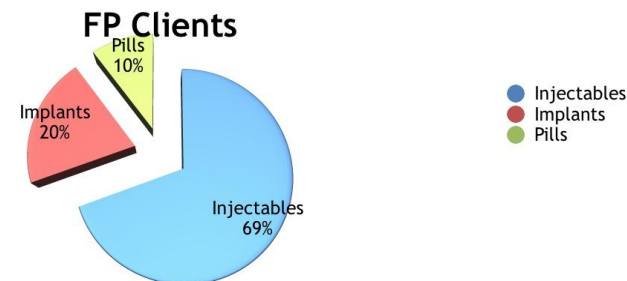
We beefed up the health clinic

- We bought family planning equipment and supplies. The doctor received family planning training.
- Other organizations added a delivery table, maternity ward & ambulance.
- The Clinton Foundation provided a solar-powered refrigerator for vaccines.

The use of family planning methods doubled from 24% to 52% between late 2016 to late 2017 !!

2.1d. FAMILY PLANNING SERVICES:

S/n	Type of service	MONTHS												Sub total		Total
		Jan		Feb		Mar		Apr		May		Jun				
		New	Reat	New	Reat	New	Reat	New	Reat	New	Reat	New	Reat	New	Reat	Total
	Pills	0	3	0	2	0	8	0	1	1	0	0	0	1	14	15
	Injectables	0	17	0	17	0	17	0	13	0	26	0	12	0	102	102
	Implants	1	7	0	2	3	6	0	2	0	4	0	5	4	26	30
	Removal implants		3		1		0		0		0		0		4	4
	IUCD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ML/ LA,NSV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total clients served	28		21		34		16		31		17		5	142	147



Medical Interpreters

In 2020 I discovered that the use of family planning had dropped to 13%.

On investigation I found that the doctor had retired and the new doctor did not speak the Maa language.

So we hired these two women who spoke Swahili to become medical interpreters



Medical interpreter helping a patient with a urine sample

Nemburis likes being a medical interpreter. Her life has changed because she knows the medicine for different diseases and also she has been advising women to give birth at the hospital because it saves lives.



Common or Potential Barriers to Family Planning Success



Doctor opening the family planning supplies and equipment

1. Language difference between patient and provider
2. Remote location
3. Lack of basic education
4. Lack of information and/or superstition about family planning methods
5. Home births (no opportunity for education from the doctor)
6. Long distance from community to the hospital
7. Failure to take a sick baby to the doctor
8. Lack of family planning training for the doctor
9. Lack of family planning methods, supplies & equipment
10. Pressure from the husband or community to produce babies
11. Racial prejudice on the part of medical personnel (who treat the patient badly)
12. Suspicion that the doctor is a eugenicist.

Health Classes

Topics

- Family Planning
- Early Pregnancy
- Child Marriage
- Birth Spacing
- Midwife training
- FGC/M & sex ed in Schools
- HIV
- Gender/social norms
- Maternal Health
- Breastfeeding
- Nutrition
- Hygiene
- Domestic Violence
- Vaccination

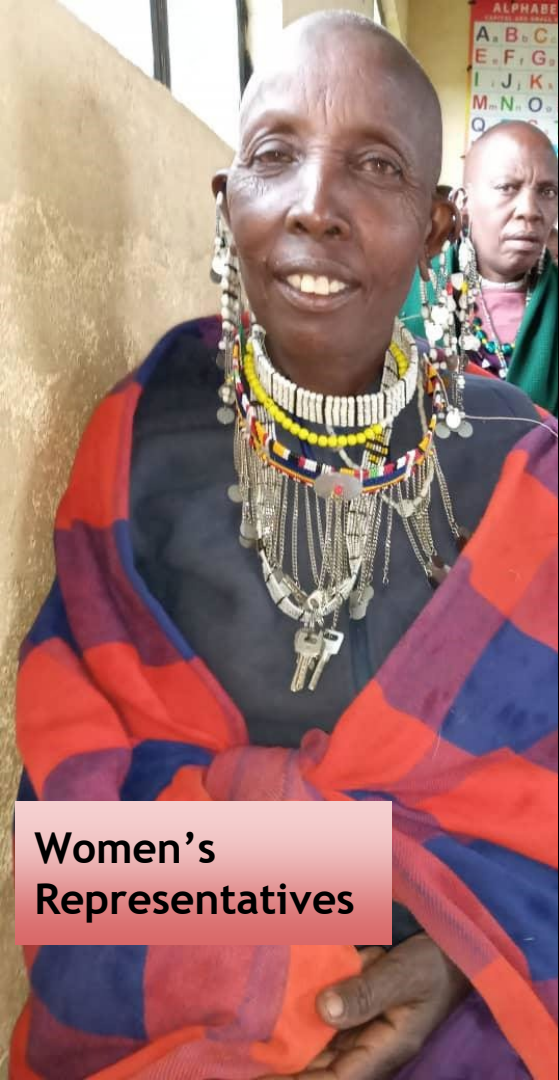


Grace, our medical student, teaching health classes

Happy Health Class



Grace



Women's
Representatives





Dec 2019



Jan 2021

One side says
*“I am boasting
about the
advantage of
going to
school”*



The other side
laments *“I feel
sorry that I
am not going
to school”*



Malnutrition, Infant Mortality, & Population Growth



Begging for Maize

2017 was a drought year. We had to buy maize for those who were poor.

On top of that, Ngorongoro residents are not allowed to cultivate subsistence crops.

They were supposed to get food subsidies, but they don't get them any more.



Begging for maize



When women are malnourished, they produce less breast milk.

- This has three effects:

1. Breast milk is a contraceptive, and when it stops, women become fertile again.
1. Babies become malnourished
1. When babies die, women want to have more babies to insure against infant loss

- Maasai women don't name their babies until 3 months of age due to high infant deaths.

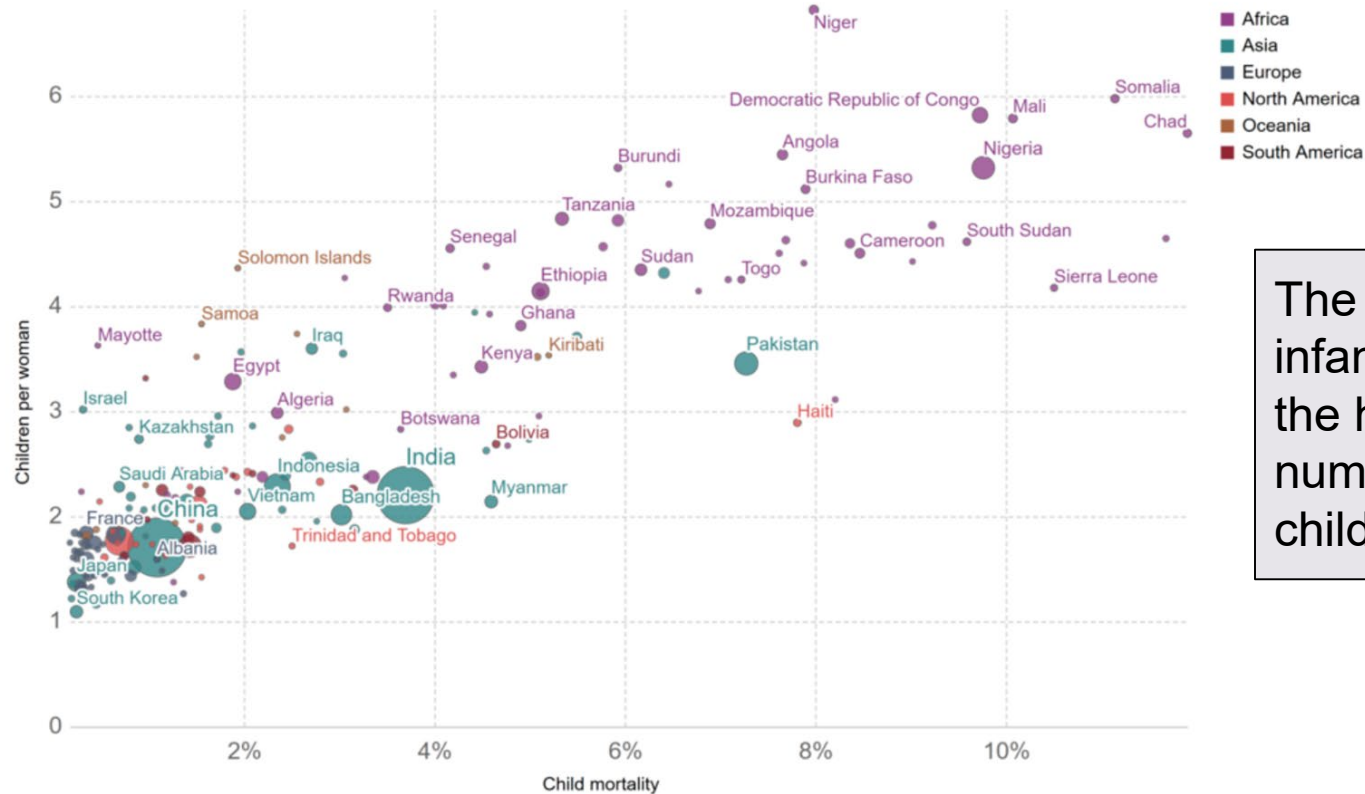
- FGM also contributes to infant mortality because the opening to the mother's womb is narrowed, so they eat less food to have an easier birth.



Average number of children vs child mortality, 2019

Child mortality measures the share of children that die before their fifth birthday.

Our World
in Data



The higher the infant mortality, the higher the number of children born.

Source: UN Population Division (2019 Revision)

OurWorldInData.org/fertility-rate • CC BY

Source: <https://populationmatters.org/news/2021/05/conspiracy-chaos-coronavirus-bill-gates-un-and-population>



A goat or sheep costs
\$22

November 2020:
To supplement their maize
diet, we bought sheep and
goats, enough that every
woman has at least three
sheep or goats.

This is better than buying
maize because the sheep
and goats will multiply.

Several months later: The
sheep and goats are
having babies.



Womens Crafts and Livelihood

Covid has closed the tourist market, unfortunately, so jewelry is piling up.

We will try to sell it on our Facebook page.



Traditional Bead work



Sewing ladies making midwife aprons



Fuel Efficient Stoves



Stoves \$75 each

Benefits of “Maasai Stoves”

1. Uses less wood
2. Less time carrying wood home
3. Less indoor smoke pollution
4. Fewer children tripping in fire, burning themselves



- Pneumonia and respiratory illness are the number one health problem for women in this area.
- Pneumonia is a common cause of infant death
- Two of the three girls that I first sent to secondary school got pneumonia when they came home, and one of them died.



Secure Your Family's Future

Program for Men

That teaches:

*"Men and women
should have equal
voice in family
decisions."*



Ending ceremony

Tourism & Eviction



The tourist vehicles seem to outnumber the wild animals









Who has the
biggest footprint:
Maasai or Tourist?





Maasai residents' livestock watering holes are restricted while resorts fill up their swimming pools



Maasai used to burn noxious weeds like this.
The authorities refuse to do so. Thus cattle are starving.
The zebras are allowed in places where cattle can't go.

The Native Americans used to set fires to control vegetation to conserve the grasslands; so did the Maasai



Invasive weeds in the Ngorongoro Crater

Serondeti

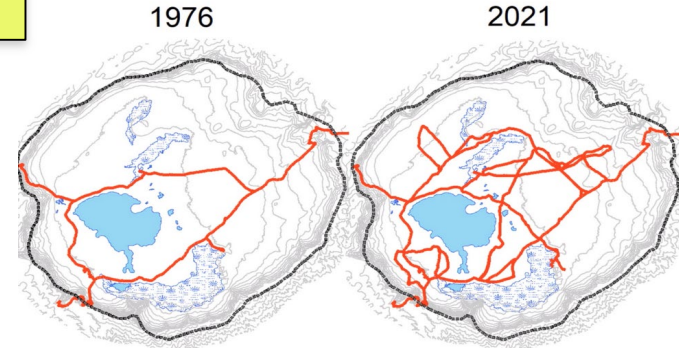
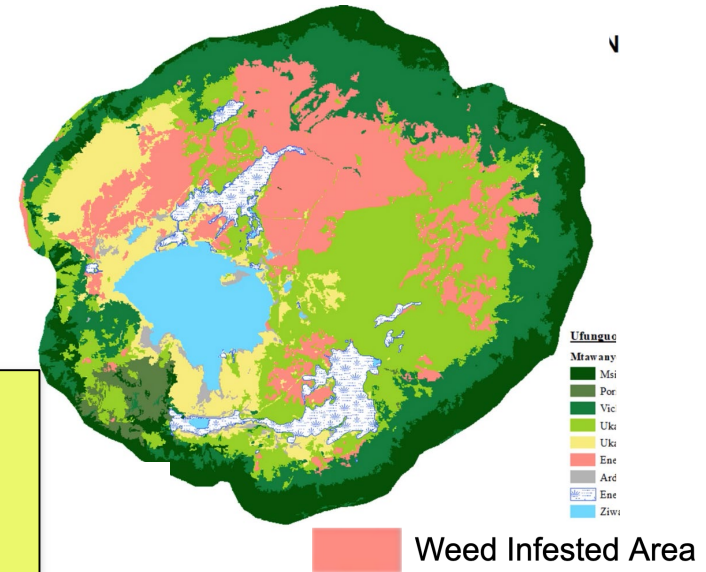
Ngorongoro is the jewel of the Ngorongoro Conservation Area. It is the main attraction of nearly all Ngorongoro tourism.

The NCA Authority says: “Degradation of range = “Tipping Point”, blaming it on the population of the pastoralists..

Dr Nagol says it's unfair that the government and other bodies blame the pastoralists for invasive plants -- since they have not been there for over 45 years.

Youtube: [“Save the Valley”](#)

Also too many roads are destroying the crater



The Maasai got the blame for having these modern houses, but they belong to Ngorongoro Authority and tourism employees and retirees



December 2020

AllAfrica.com

So-Called Tipping Point



NGORONGORO AT TIPPING POINT AS POPULATION SOARS

"Sustainability of mutual coexistence between wildlife and people in the Ngorongoro Conservation Area (NCA) is at jeopardy as the population soars."

<https://allafrica.com/stories/202012290072.html>

April 12 Eviction Order

Six days after the President's statement, the Authority published a document that would evict certain illegal immigrants, while hundreds of others were required to demolish buildings including government primary schools, health centers, police stations, churches, mosques and private homes.

March 19, 2021

Tanzania swears in new president after sudden death of Magufuli

Vice President Samia Suluhu Hassan sworn in as president on Friday, after the sudden death of John Magufuli from an illness.



New President:
Samia Suluhu Hassan

April 18 2021 Maasai Appeal

NGORONGORO HERDERS AGAINST
EVICTION FROM THEIR LAND

Wednesday, April 21, 2021 No Comment



April 7 2021



Tanzania: Samia Nails It On Ngorongoro Tipping Point

PRESIDENT Samia Suluhu Hassan expressed concerns of a threat facing Ngorongoro Conservation Area, saying the soaring human population jeopardises the wildlife in the world's greatest unbroken caldera

April 20 Eviction Called Off



Tundu Antiphas Lissu
@TunduALissu

The Ngorongoro Conservation Area Authority has halted plans to evict hundreds of Maasai people following our Cyber Lounge debate on conservation and rights abuses in Tanzania's protected areas. Time has come to end crimes against humanity committed in the name of conservation.

Voices from the Maasai

“Wildlife has been increasing. There is no sign that it is vanishing”

“Ngorongoro should not only benefit the tourism industry but the local people as well.”

By limiting areas that residents can access, areas available for tourism will expand. While millions of tourists continue to pour into the NCA, the environmental threat this poses is not being recognized.

Indigenous population numbers are inflated

The authorities chose 100,000, , as the magic number that would mean a tipping point was about to be reached.

But it did not match the growth rate they had used to compute the numbers, so they reached the conclusion that about 40,000 were immigrants.

Part of that 40,000 is comprised of Ngorongoro authority/ tourism employees and retirees and staff of schools, churches and NGOs. People who work there, but don't live there are also counted.

“Even if there were 100,000 pastoralists, there is no scientific evidence to prove that the number threatens conservation in Ngorongoro.

Ngorongoro has the largest black rhino population in the world, including the Serengeti, which has no pastoralists.

Despite the presence of pastoralists in Ngorongoro, the park has more tourists than any other park.”

The problem with targeting immigrants is that few people can prove that they are not an immigrant. No records were kept, even though population was thought to be a problem many years ago.

A photograph of a classroom building. The building has a light blue corrugated metal roof and a wall made of woven bamboo or reeds. The ground in front of the building is dirt with some sparse green grass. Bare tree branches are visible in the upper part of the image.

\$5,000 Classroom

Maybe there is hope for this classroom after all.

Maybe the young preschool kids won't have to walk so far to school.

Maybe more girls can go to school

But the danger is not over!

They have been threatened with eviction and attempts to force them to leave for many years.

Education in Ngorongoro Conservation Area is extremely insufficient.

Health care is sadly lacking.

Cattle are restricted, subsidized grain has ended, no cultivation is allowed, pasture is degraded. Right to food is gone.

Although social services were promised the Maasai, they are sadly underfunded with little or no profit from tourism going to the residents.

These things are needed to slow population growth. If the Authorities had provided the things that they promised starting when they forced the Maasai to leave the Serengeti and move into a much smaller area, then there would be no problem with population.

However, there is no guarantee that that would be the end of colonial control over the Maasai.

From Special Rapporteur's Statement About Biodiversity & Indigenous Peoples

Indigenous knowledge is vital to saving the world's biodiversity—and consequently, to humanity's future. It finds that lands managed by Indigenous Peoples and local communities experience less biodiversity loss than other lands, suggesting we are thus vital to the survival of humanity. And it proposes recognizing our traditional knowledge—and our legal rights to own our lands and forests—as a key solution to the biodiversity crisis.

This consistent, all-encompassing approach to biodiversity protection is the reason why Indigenous Peoples live in areas with the richest biodiversity and least damaged ecosystems. About 80 percent of all the world's biodiversity is located on indigenous lands.

But our efforts to protect the biodiversity of plant and animal life on our lands are often met with violence. We are criminalized and killed and run off our traditional territories by powerful political and economic actors who seek to extract wealth from the landscapes we have inhabited and cared for, sometimes for generations. In the process, they often destroy the lands we have long preserved.

Ironically, we are often excluded from treasured landscapes by those whose goal is conservation. Worldwide, at least 40 to 50 percent of protected areas have been established on lands traditionally occupied or used by Indigenous Peoples—with devastating consequences.



Email me for a repeat of this presentation + Q&A on June 30: masai-harmonial@gmail.com

Maasai Harmonial Development and Sustainability

Website: Masai-Harmonial.org

New: Maasai-Harmonial.org

Share this presentation:

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Email:

masai-harmonial@gmail.com

Donate: bit.ly/MHDSdonate

Transition-Earth.org

Girls Song



Background:

[Maasai History and Ngorongoro](#)

[Maasai Rights](#)

[Indigenous People's Rights International](#)

[Population, Carrying Capacity, and Racism](#)

[Oakland Institute: The Looming Threat of Eviction](#)

[View From the Termite Mound Blog- War on the Maasai](#)

[A Place Without People \(Youtube / Trailer\)](#)

