



2016年(第25回) ブループラネット賞
受賞者記念講演会

2016 Blue Planet Prize
Commemorative Lectures

マルクス・ボルナー教授
講演スライド集

"野生にこそ世界の救い" ヘンリー・デイヴィッド・ソロー
アフリカにおける自然の保全に対する私見

Professor Markus Borner
Slides for the Lecture

“Wilderness is the Preservation of the World”
Henry David Thoreau
A personal view of conservation in Africa



“Wilderness is the Preservation of the World”
Henry David Thoreau

A personal view of conservation in Africa



Blue Planet Prize
The Asahi Glass Foundation,
November 2016



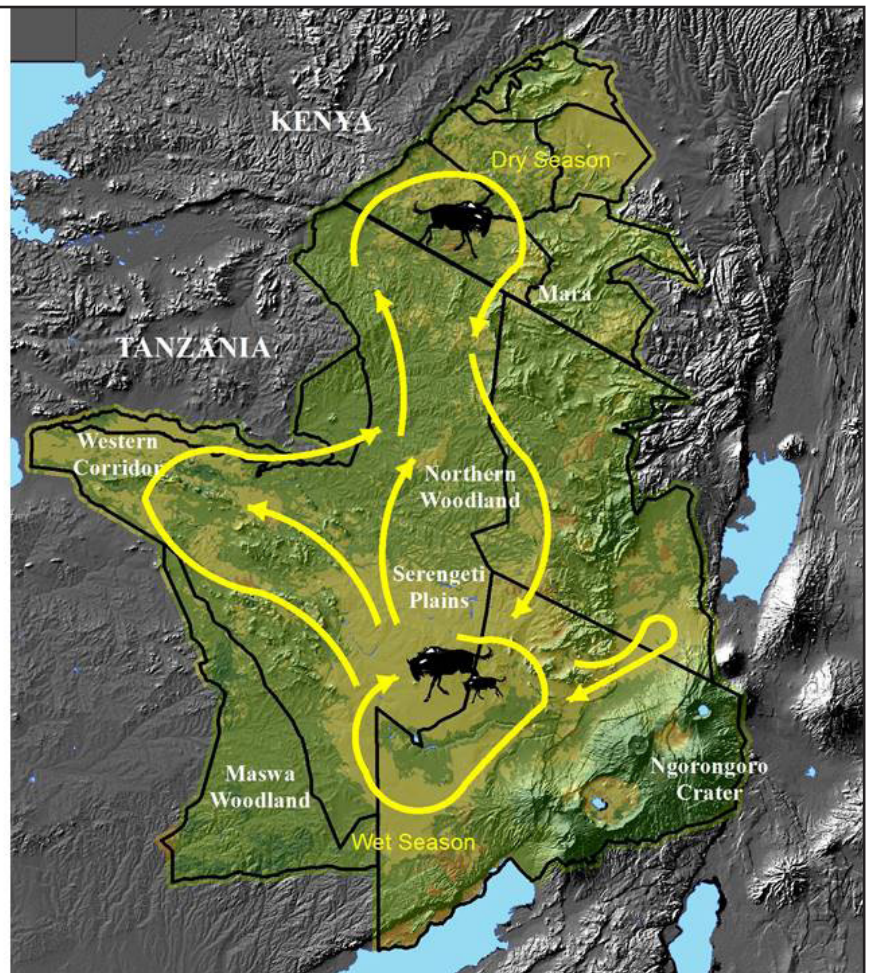
FRANKFURT
ZOOLOGICAL
SOCIETY



Serengeti wildebeest migration

The Great Serengeti Migration:

1,5 Million
Wildebeest and
200,000 Zebras



Serengeti

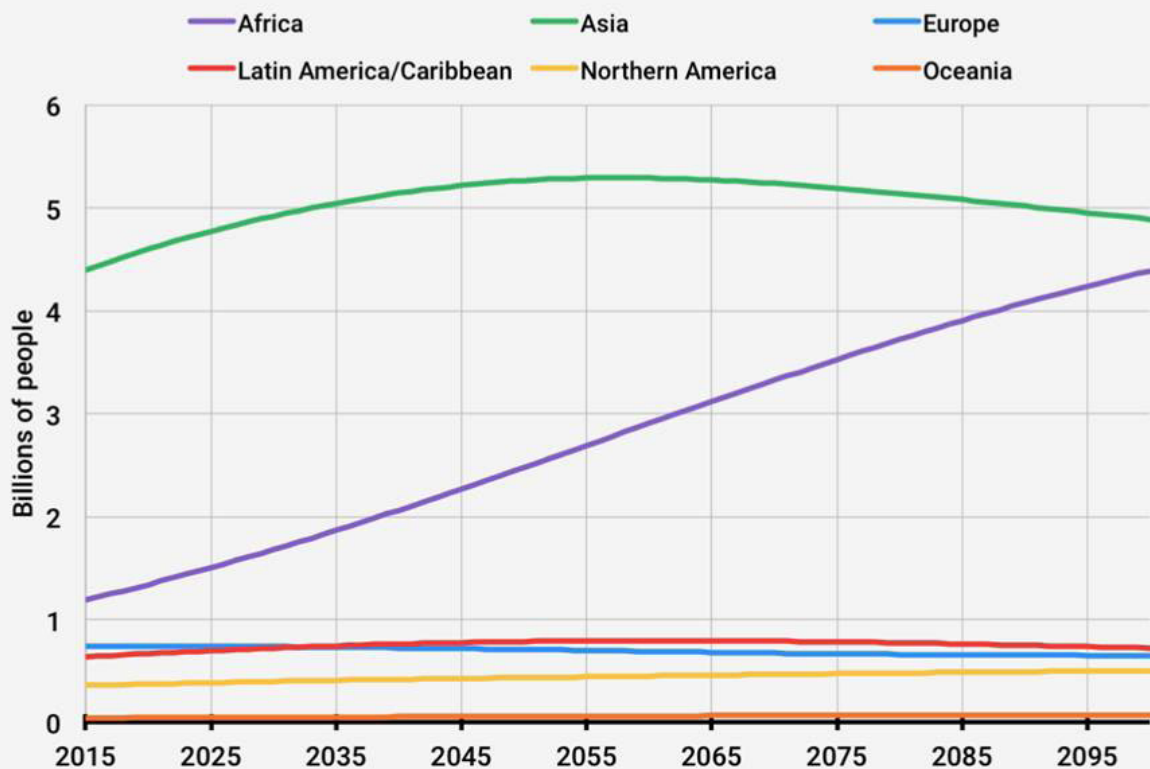


The major threats to Serengeti and all conservation areas in Africa:



- Human population growth
- Climate change, water, disease
- Poaching
- Development, infrastructure,

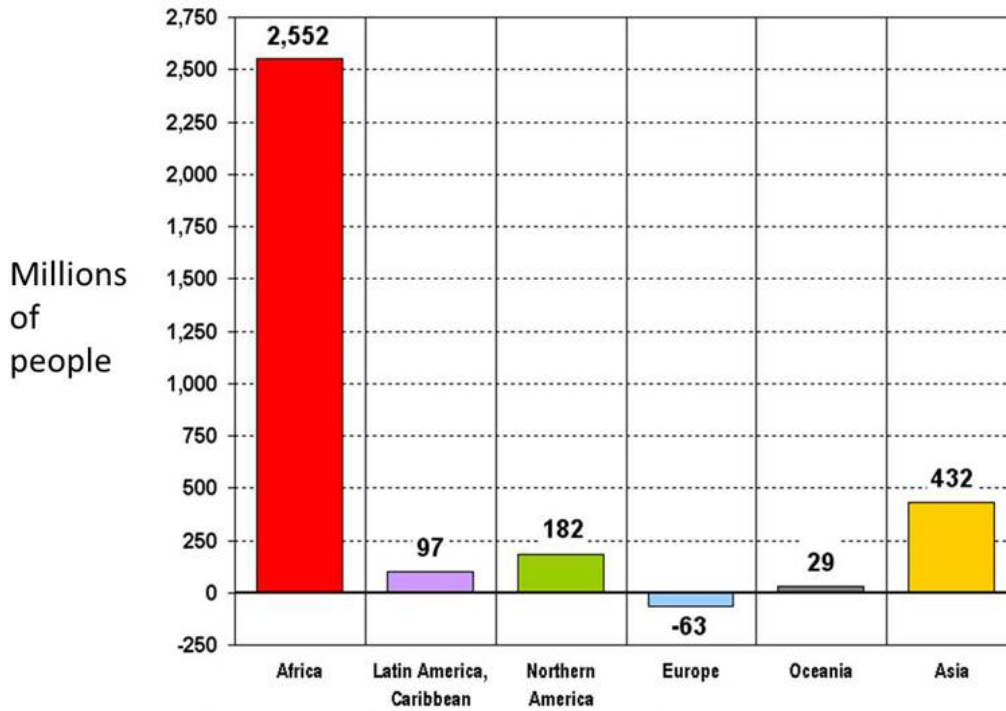
Population projections, 2015-2100



SOURCE: UN Population Division, "World Population Prospects, the 2015 Revision"

TECH INSIDER

Sources of population growth to 2050

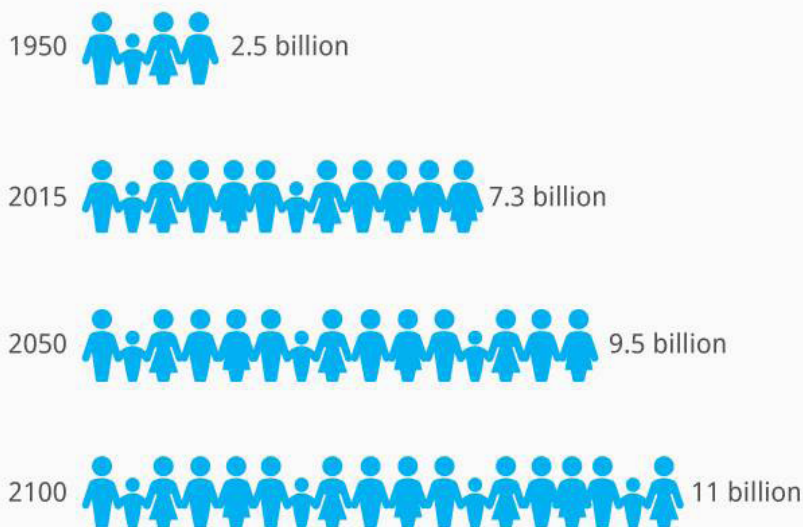


Source: United Nations, *World Population Prospects, The 2010 Revision*

By the End of the Century, 40% of People Will Be African

World population forecast with Africa's percentage share

World's Population



Africa's Population

Accounts for

230 million



1.2 billion



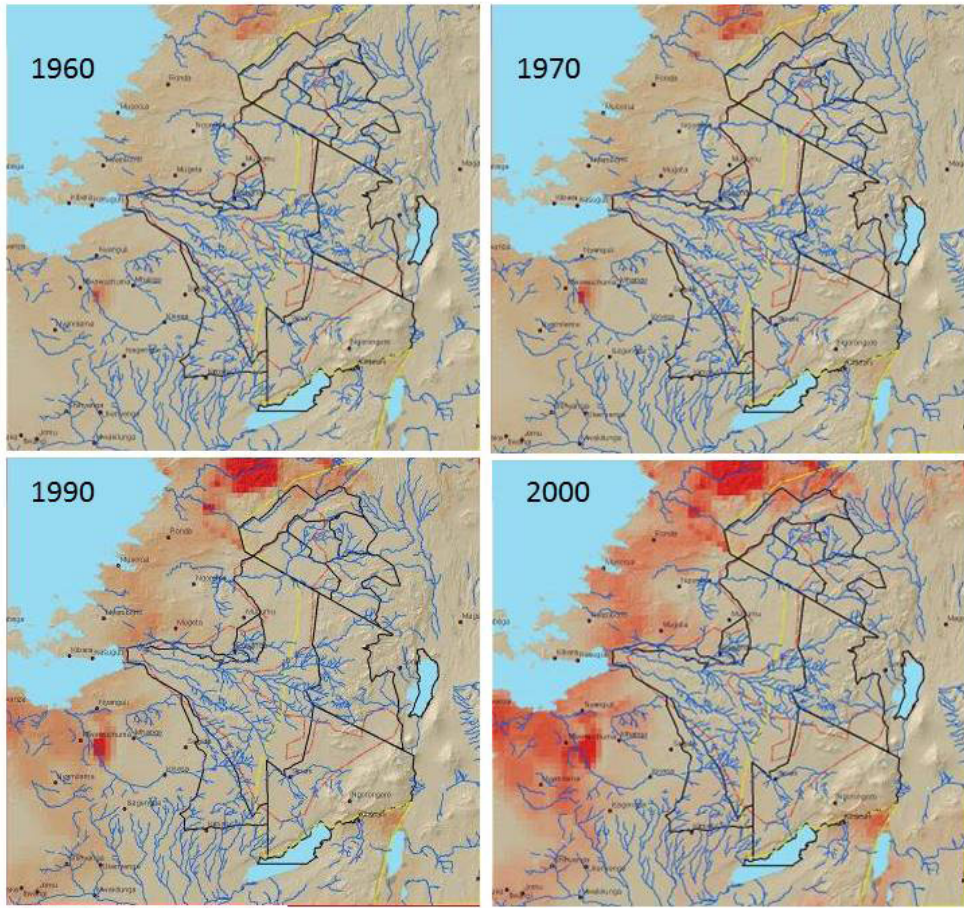
2.4 billion



4.2 billion



Source: UNICEF



Increasing Human Populations on the National Park boundary

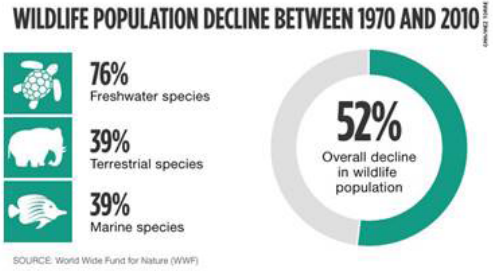
- Results in more:
- Poaching
 - Disease
 - Human –wildlife conflicts

Human population density (km-2)
 High : 500
 Low : 0

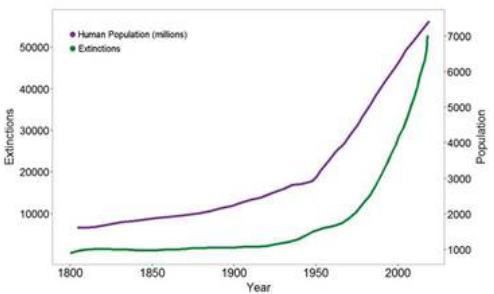
Human population growth and biodiversity

As human numbers grow, species and their habitat diminish.

The Living Planet Report 2016. ZSL/WWF

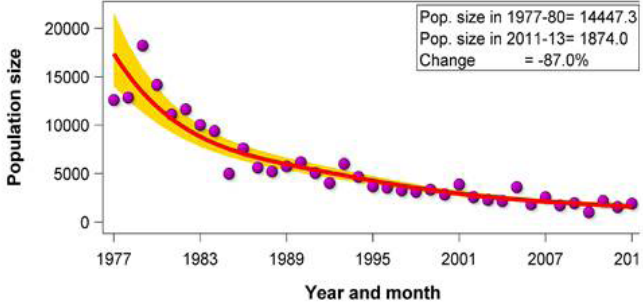


Humans & The Extinction Crisis



Data source: Scott, J.H. 2006. Threats to Biological Diversity: Global, Continental, Local. U.S. Geological Survey, Idaho Cooperative Fish and Wildlife, Research Unit, University Of Idaho.

Grevy's zebra in Kenya



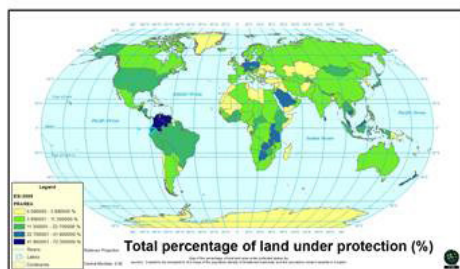
Joseph O.Ogutu et al, PlosOne, September 2016

2 billion new citizen by 2050 - The challenges for the African countries are huge.

If we want to save some of the biodiversity in Africa in the face of the coming human population surge we need to:

- Support and improve reproductive health systems
- Empower women, increase education and training
- Integrate communities into conservation efforts
- Re-enforce park protection and **support protection of “Paper Parks”**

A good starting point for the struggle ahead



Tanzania has a third of the land area under protection

But many of them “Paper Parks” without effective protection.



A good starting point for the struggle ahead



Improved Reproductive Health Systems all over Africa

Empowerment of women, even in the law enforcement of National Parks in Tanzania



A good starting point for the struggle ahead



Conservation Education, part of Tanzania's National Park Program

Training of wildlife management professionals.



A good starting point for the struggle ahead



Involving local communities in conservation, a department of Tanzania National Parks



Empowerment of communities for wildlife use through the Community Conservation Programs of Tanzania's Wildlife Sector

A good starting point for the struggle ahead



Training of law enforcement staff and use of modern equipment in the Wildlife Sector

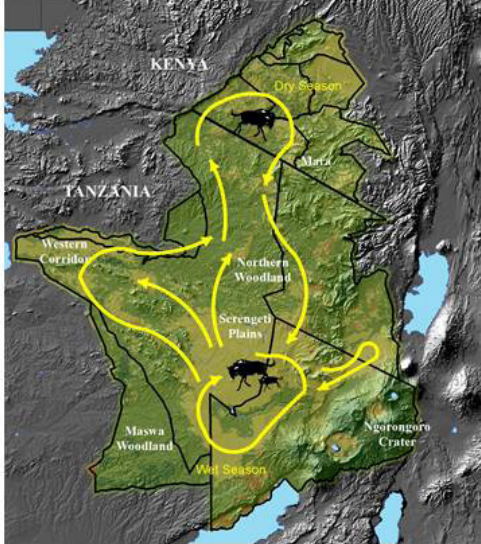


Climate change and competition for water

Source: Intergovernmental Panel on Climate Change 2001

GCM Predicted Changes in Temperature

Projections: More extreme events - floods and droughts



Much greater than average warming
Greater than average warming
Less than average warming
Inconsistent magnitude of warming/cooling



Africa might become the main victim of climate change

- Climate change is a planetary threat and needs planetary solutions



Poaching (Illegal hunting) Threat



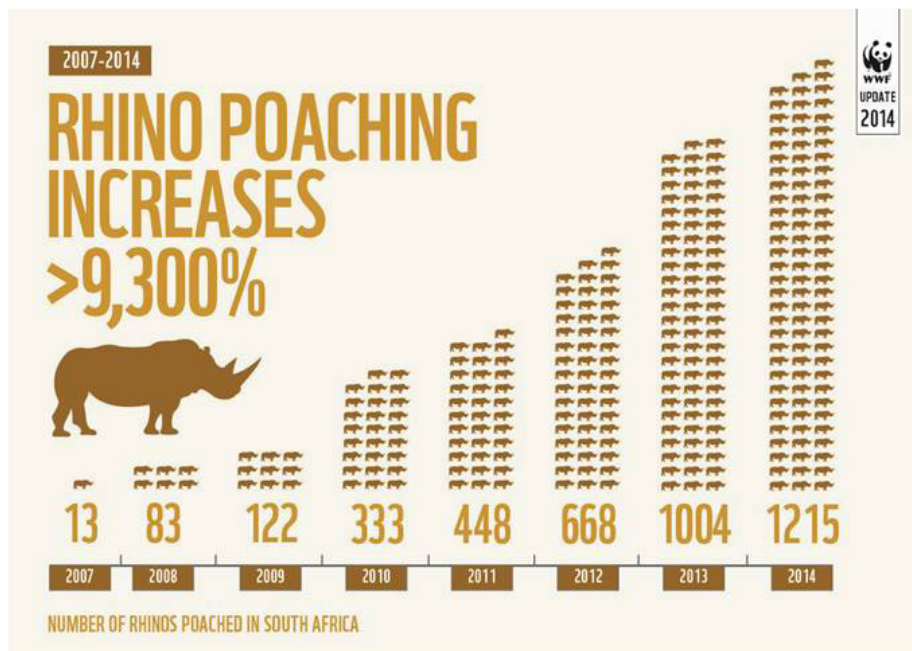
Meat
poaching

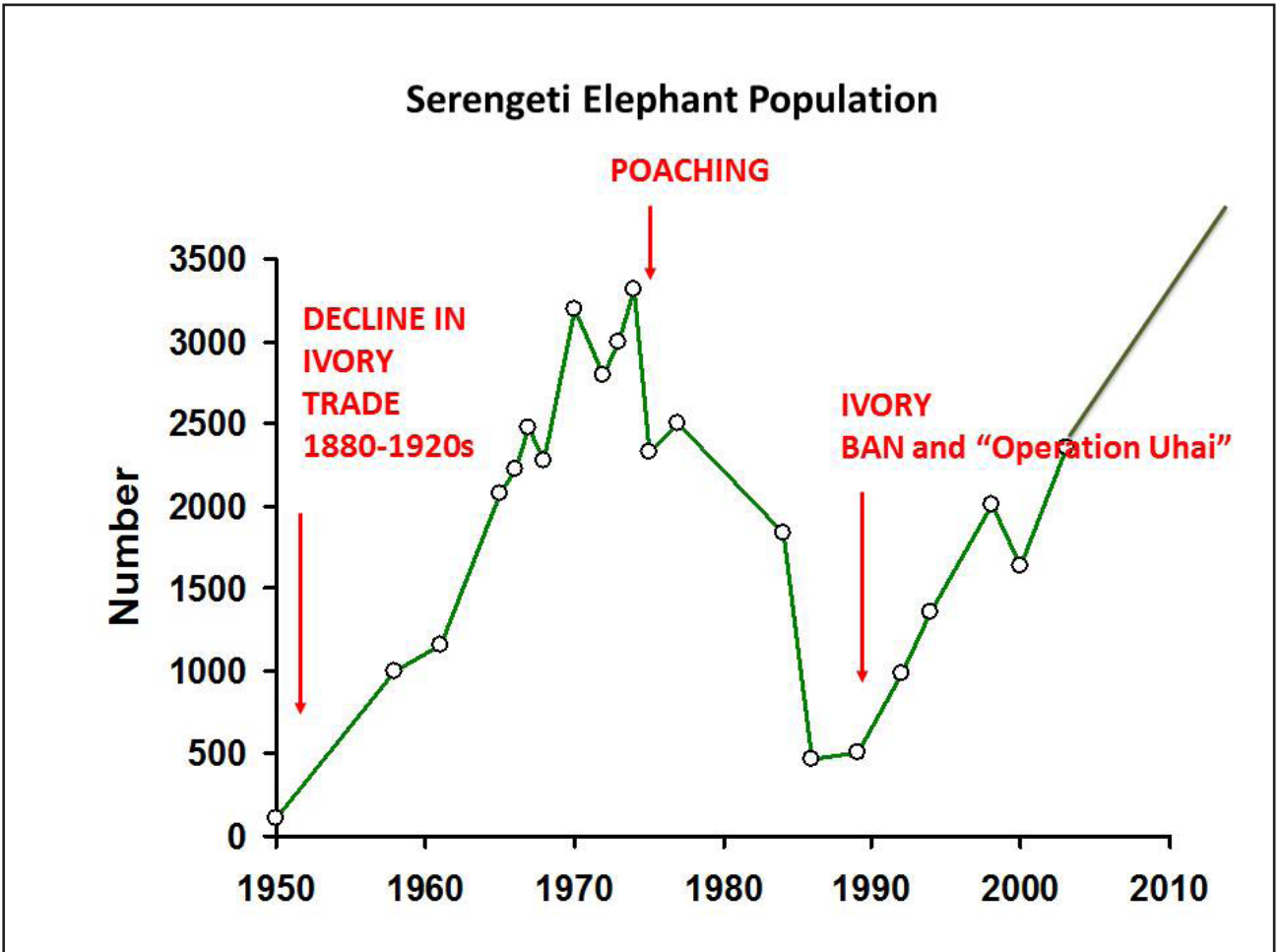
Poaching of
rhino and
elephant



Current gold price
\$ 42'830 per kg

Current rhino horn price
(street value in Vietnam)
\$ 65'000 per kg





Africa's poaching crisis must be solved!

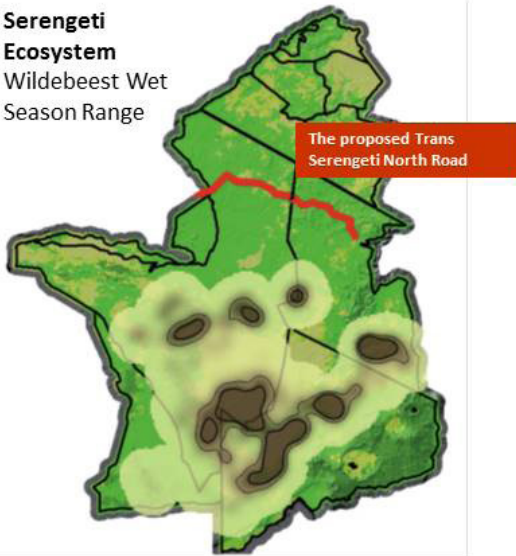
- Increase law enforcement and protect the rapidly vanishing "Paper Parks"
- Target wildlife smuggler international syndicates
- Educate consumers of ivory and rhino horn and other wildlife products and Close the international trade in wildlife products and live wildlife
- Empower communities to conserve and use their wildlife and work with them to minimize "Bush – meat" consumption



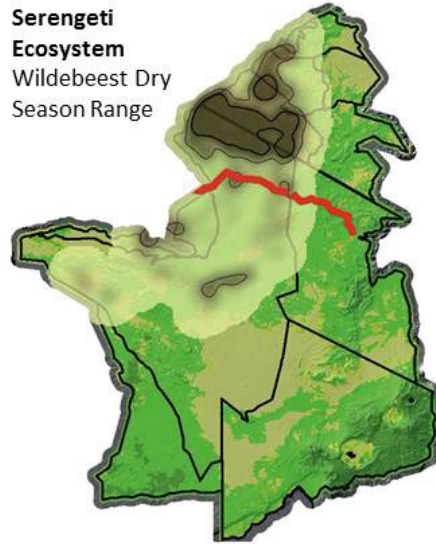
Planned commercial road through Serengeti and the world famous wildebeest migration

During the dry season, the wildebeests rely on critical water sources in the Masai Mara, north of the planned road. The road bisects the migration route.

Serengeti
Ecosystem
Wildebeest Wet
Season Range



Serengeti
Ecosystem
Wildebeest Dry
Season Range



Source: G. Hopcraft

Conservation reasons against a highway through the Serengeti

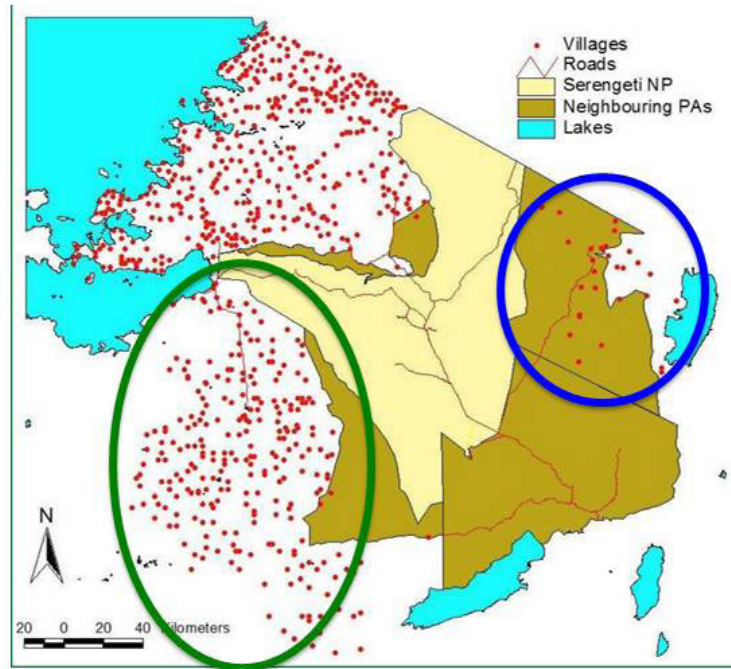
- Direct negative impact on the ecology
- Disruption and ultimate end of largest still existing wildlife migration in the world
- Degradation of Serengeti's iconic values for the world
- Direct negative impact on tourism revenue in Serengeti and countrywide
- Backlash against Tanzania's reputation as world leader in conservation



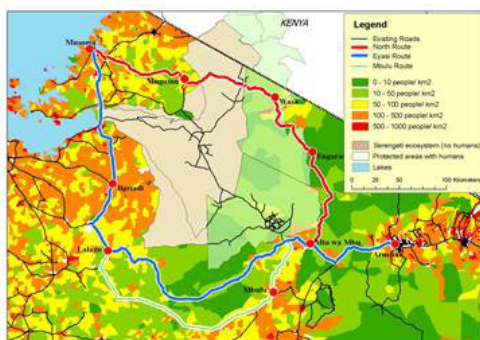
Socio-economic reasons against a highway through the Serengeti

Villages to be connected to market by new road:

- Planned Serengeti Highway
- Southern Bypass Road



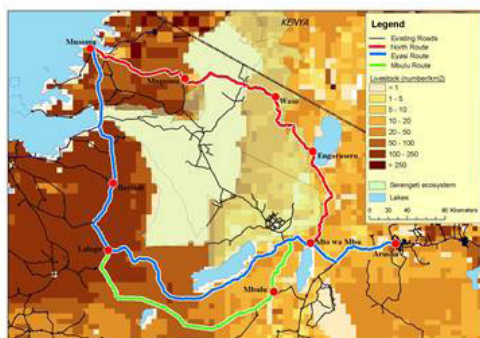
Human Density



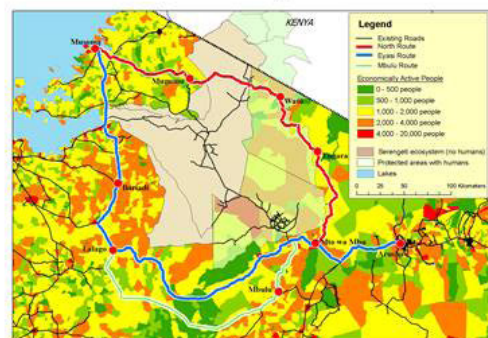
Agriculture



Livestock Density



Economic Activity



In June 2011 the Tanzanian Government agreed not to build a tarmac road through the National Park.

Donor Nations lead by Germany promise to assist the Tanzanian Government to build the south road alternative.

Unfortunately this has not happened until today.

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF NATURAL RESOURCES AND TOURISM

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P.O. Box 9372
DAR ES SALAAM

Ref. NO. EA.297759301/20
Director,
World Heritage Centre,
7, Place de Fontenay
75352 Paris 07 SP,
FRANCE

22nd June 2011

Re: STATE OF CONSERVATION OF SERENGETI NATIONAL PARK

The United Republic of Tanzania is honored to take this opportunity to clarify on the proposed tarmac road in northern Tanzania.

The proposed road will be constructed in two sections:

- (i) The eastern stretch of 214 km tarmac road which will be constructed from Mho wa Mbu to Loliondo.
- (ii) The western stretch tarmac road that will be constructed from Makutano-Natta-Magumu, a distance of 117 km. The stretch of 12 km from Magumu to the Serengeti National Park western border plus a corresponding stretch of 57.6 km from Loliondo to Serengeti National Park eastern border will not be tarmac. The 53 km section traversing Serengeti National Park will remain gravel road and continue to be managed by TANAPA mainly for tourism and administrative purposes as it is currently.

In view of this intended plan of construction, the State Party confirms that the proposed road will not dissect the Serengeti National Park and therefore will not affect the migration and conservation values of the Property. The ongoing ESIA will take into consideration these developments and will be submitted to WHC accordingly.

This decision has been reached in order to address the increasing socio-economic needs of the rural communities in Northern Tanzania while safeguarding the Outstanding Universal Value (OUV) of Serengeti National Park. The Government of United Republic of Tanzania is also seriously considering the construction of a road from Magumu to Anusha running south of Ngongoro Conservation Area and Serengeti National Park.

Please accept, Sir, the assurance of my highest considerations.

EZEKIEL MAIGE
MINISTER FOR NATURAL RESOURCES AND TOURISM

Development versus Conservation

- Realistic and pragmatic about justified development needs
- Dialogue between development and conservation goals
- Conservation to support poverty alleviation around protected areas
- We need to be proactive in political developments



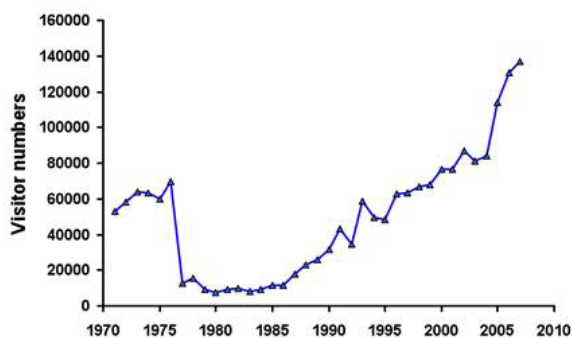
The value of tourism in Tanzania

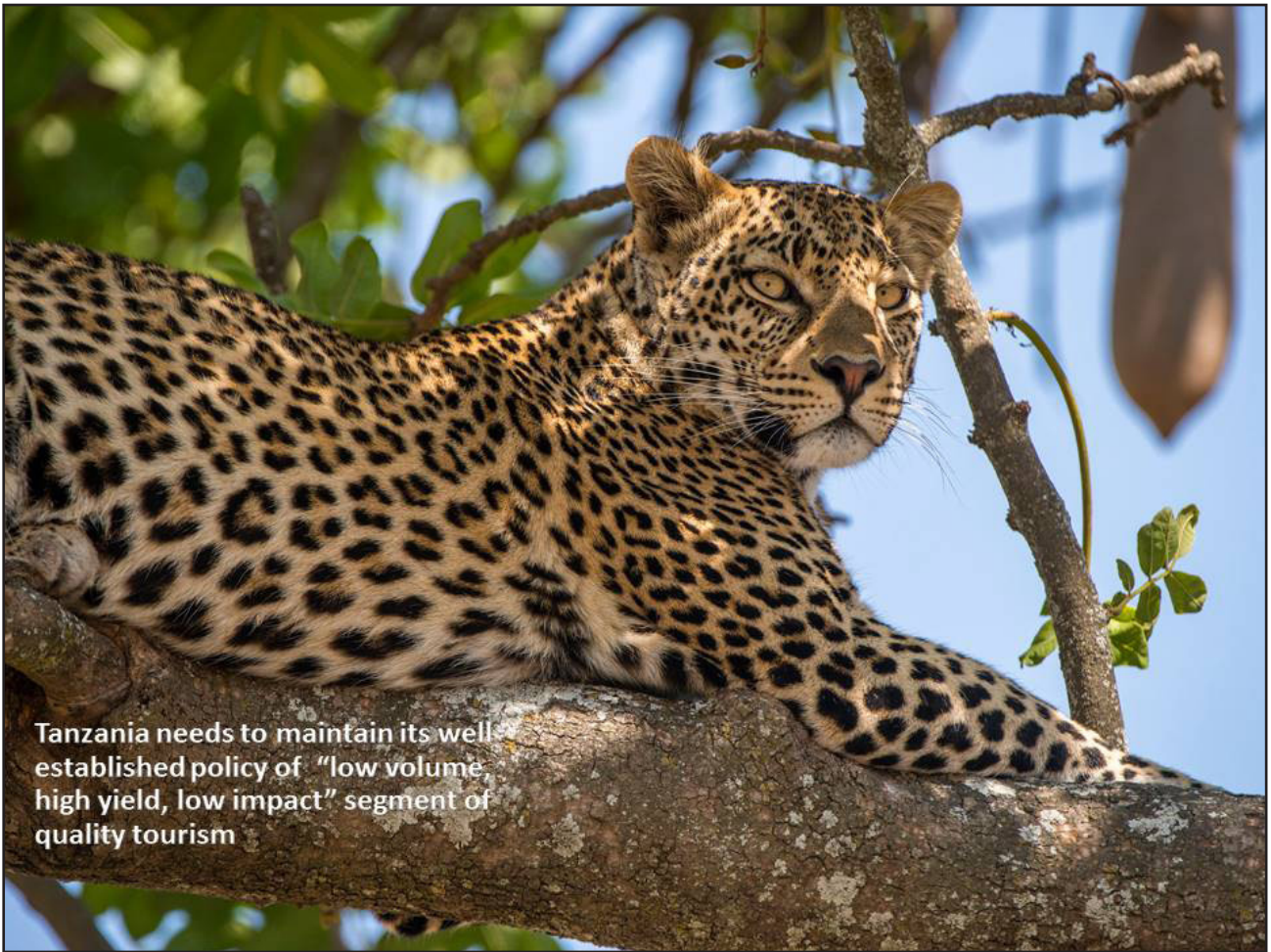


Serengeti/Mara:

Present trend from Quality- to Mass- Tourism

There is a limit to the tourism impact that the Serengeti can sustain. Beyond this, the Serengeti loses its unique tourism and economic value as well as ecological functionality





Tanzania needs to maintain its well established policy of “low volume, high yield, low impact” segment of quality tourism



Why Wilderness?

- Biodiversity of genes, species and landscapes
- Water and clean air
- Human health and wellbeing
- Income and employment generation for government and local communities
- Refuge for wildlife and indigenous peoples
- Yardstick for human activities on the planet

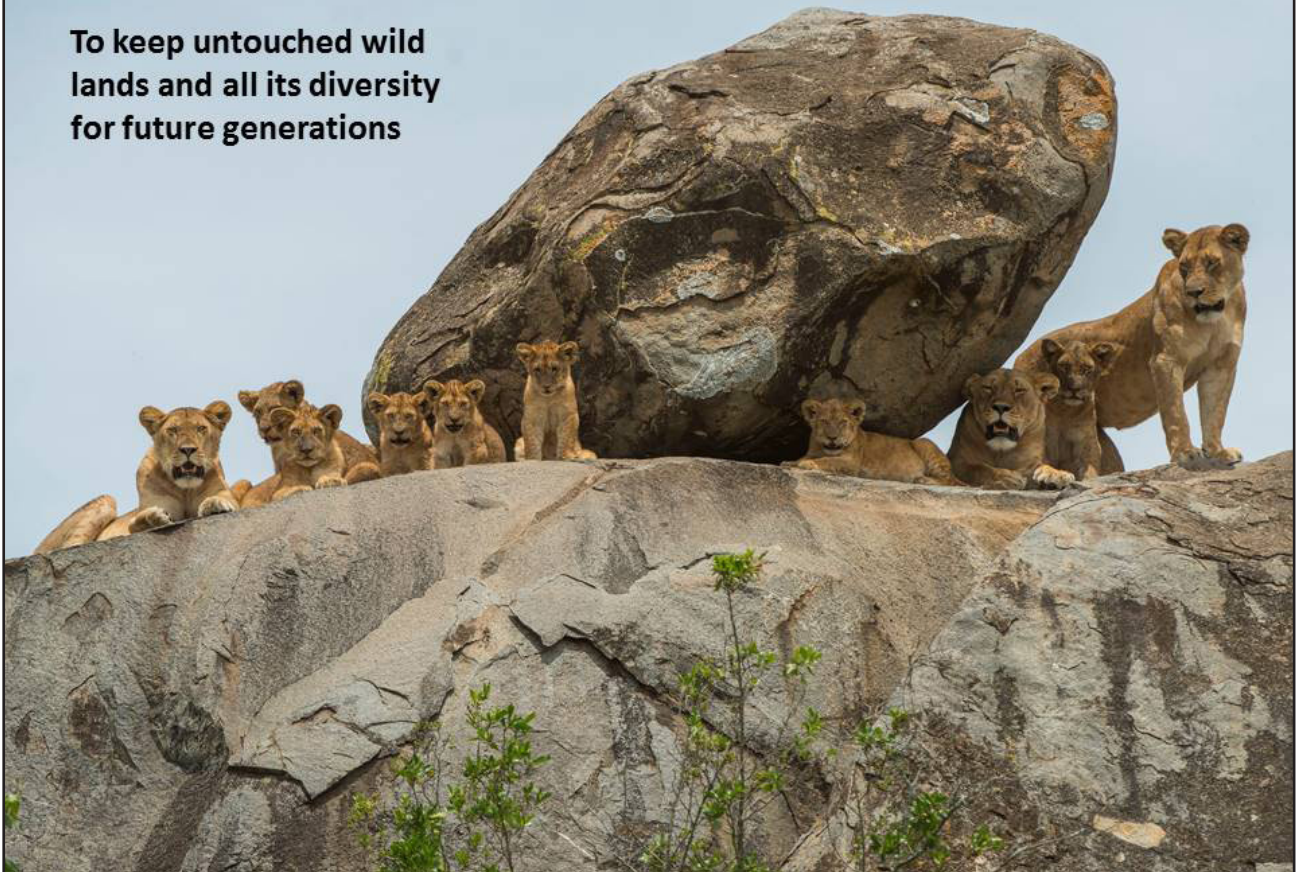
copyright: Felix Barner (www.wildlens.com)

Why Wilderness?

- Fulfill human's moral obligations towards nature
- Historical, cultural and religious values
- Spiritual renewal, recreation
- Education

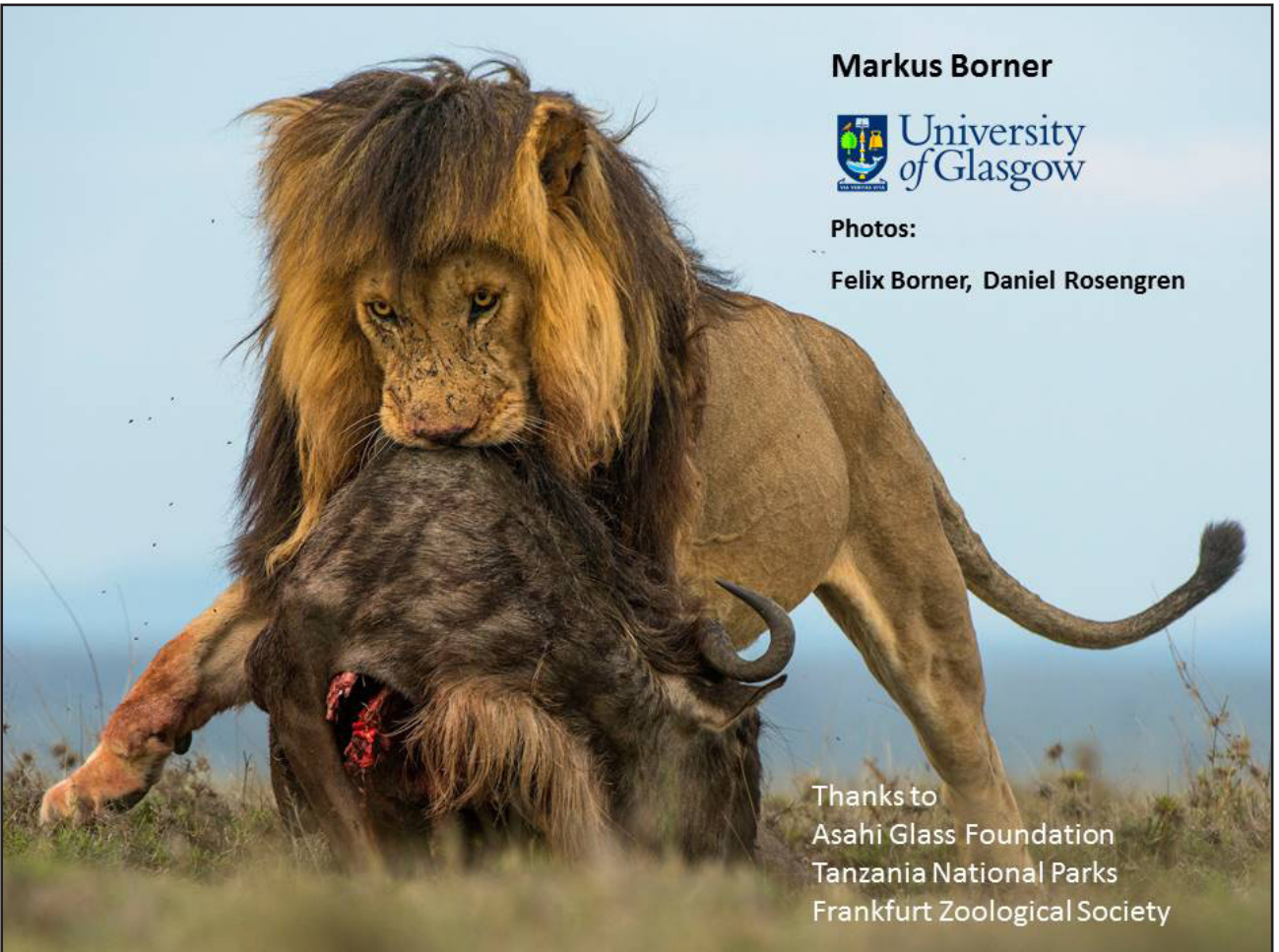
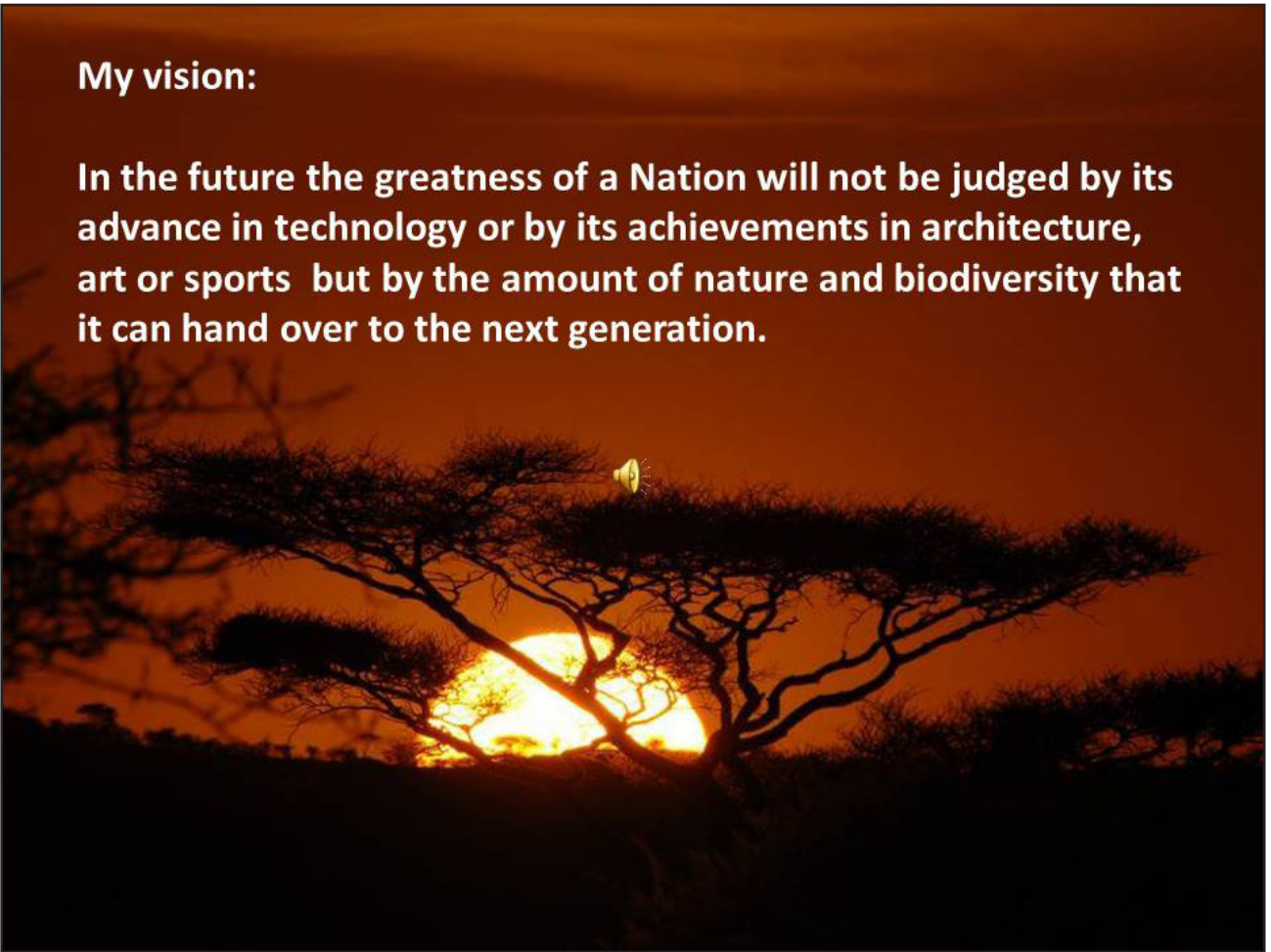
Why Wilderness?

To keep untouched wild lands and all its diversity for future generations



My vision:

In the future the greatness of a Nation will not be judged by its advance in technology or by its achievements in architecture, art or sports but by the amount of nature and biodiversity that it can hand over to the next generation.



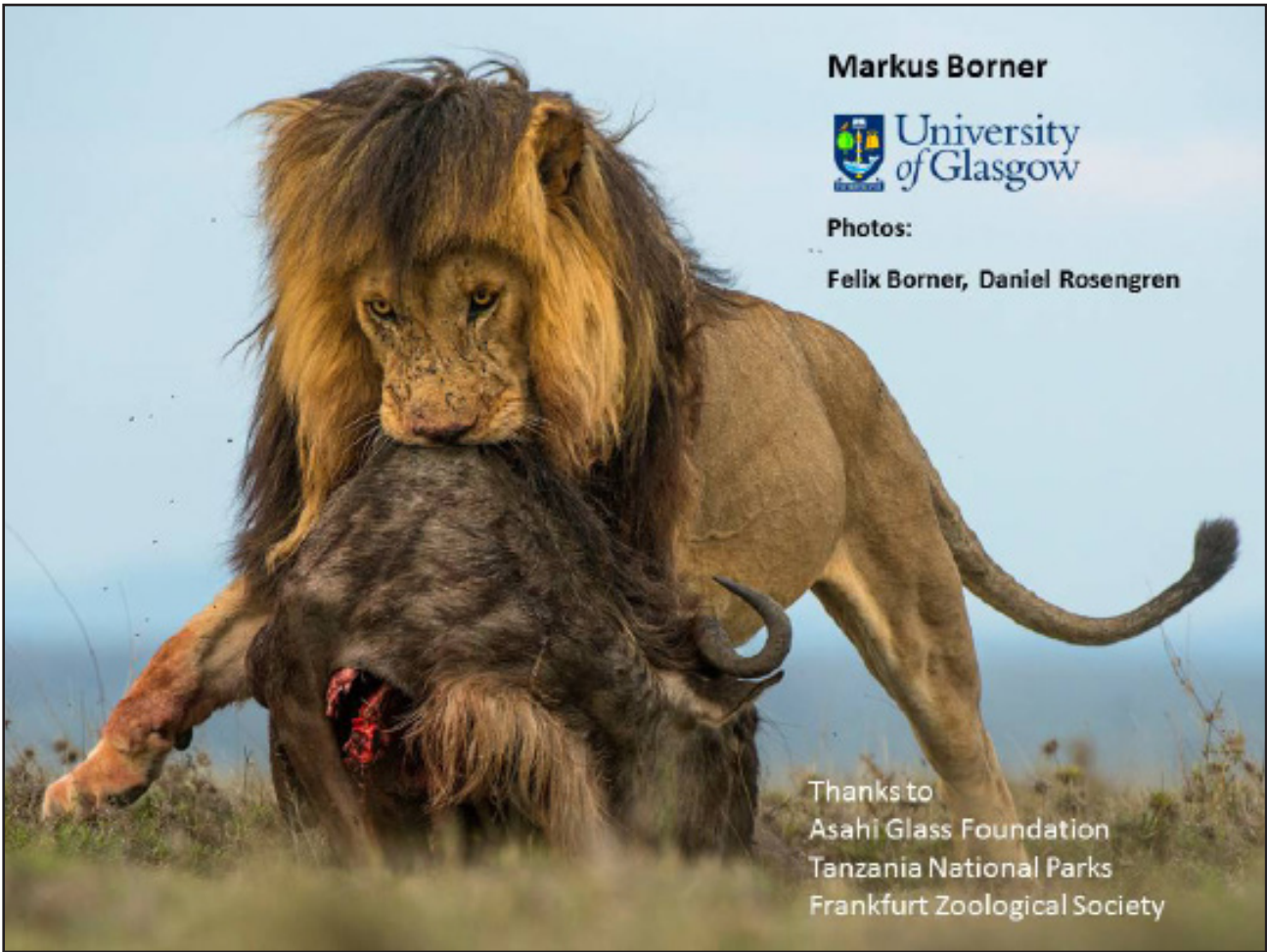
Markus Borner



Photos:

Felix Borner, Daniel Rosengren

Thanks to
Asahi Glass Foundation
Tanzania National Parks
Frankfurt Zoological Society



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