

# SERENGETI SHALL NOT DIE



Photo: [www.apsafari.com](http://www.apsafari.com)

## Imagine Africa: rolling plains of

the Serengeti savanna, an iconic umbrella tree here and there, perhaps the odd heard of zebra or gazelles. But everywhere you look hundreds upon hundreds of wildebeest.

The great wildebeest migration is probably the most iconic in the world and one of the only remaining in the world.

Re-picture the scene, the wildebeest migration, rolling plains, clear blue sky. Now pause, insert highway, fuel tankers, HGVs, high speed pickup trucks and wildebeest dodging between to get to the other side. Those crocodile infested river crossings must be starting to look like a walk in the park. If the Tanzanian government is successful, this Serengeti highway looks set to become reality.

## The Plan

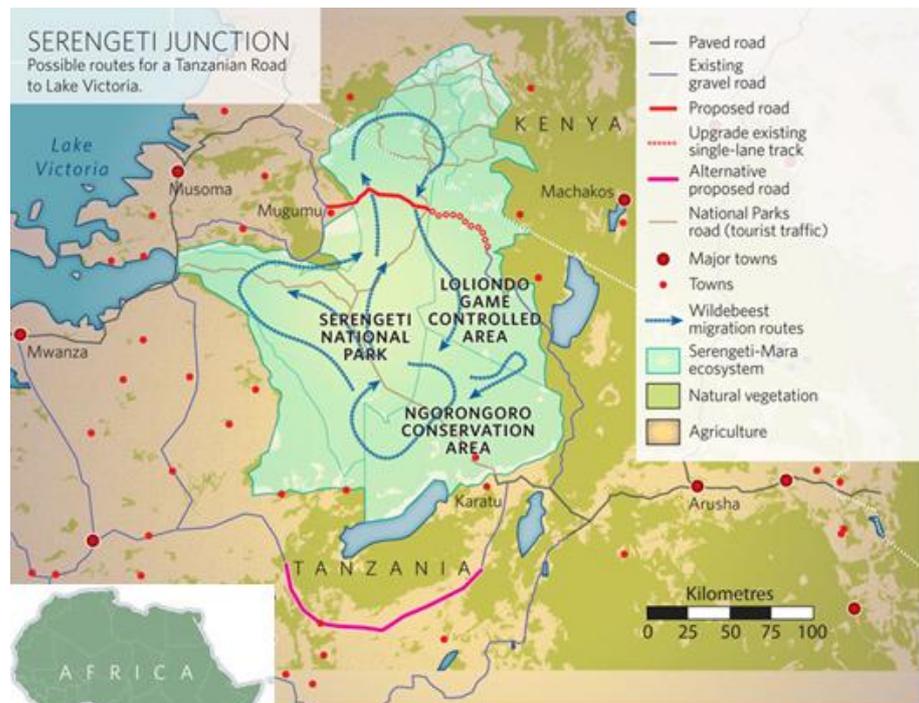
Tanzania's president Jakaya Kikwete has stalwartly pledged to begin building a highway in 2012 between Musoma on coast of Lake Victoria and Arusha. The proposed highway will cross through the north of the park, dissecting it in two.

With 95% of Tanzanian's living on less than US\$2 per day, the need for economic development is evident. Improving the region's infrastructure will enable people west of the Serengeti better access to markets and goods distribution. This need for improvement is not debated. However, does the road need to cut through the middle of the Serengeti?

## The Greatest Spectacle on Earth

Over 1.5 million wildebeest and half a million other herbivores including zebra and Thompson's gazelles roam Tanzania's endless rolling plains. They spend six months of the year rutting, mating and giving birth to half a million calves in the Serengeti before following the rains and migrating north to Kenya's Maasai Mara, where the Mara River perpetually flows. The Serengeti is currently exemplified the world over for its preservation of this unique biological phenomenon.

The wildebeest are keystone species in the Serengeti ecosystem and as such are one of the driving forces that determine the diversity and



Map: [www.nature.com](http://www.nature.com)

abundance of all other species. The combined effort of wildebeest, zebra and other migrating herbivores produces 125 tankers of urine and 500 truckloads of dung every year. These fertilizers combined with the mineral rich volcanic soils create the iconic, energy rich grasslands



of the Serengeti. These herbivores also maintain the grasslands, stopping trees and shrubs overtaking the plains with over 8 million hooves trampling seeds and saplings. Also, without these animals eating so much of the grass, over 80% of the Serengeti would burn every year.

What a different place the Serengeti would be without these spectacular animals.

### *The Highway's Hidden Costs*

The proposed two-lane highway threatens the very existence of these migrating herbivores. Scientific studies have given a clear indication that if the wildebeest migration and so access to their dry season refuge is blocked, the population will crash to less than a quarter of its current size.

Although the proposed highway will remain a dirt or gravel track throughout the national park, its impact may be far reaching. A government study has suggested that the road will become a major commercial route, and by 2015 800 vehicles will traverse the road every day, reaching 3000 per day by 2025. The primarily silt soils of the northern Serengeti are unlikely to support this volume of traffic and the road will almost inevitably become tarmac. Richard Leakey, an eminent conservationist raised in the Serengeti region, believes that although the road's impact may not be immediate, the highway will ultimately "kill the migration".

Even if the migration is not blocked, vehicle collisions with wildlife will increase. The highway and 50 meters either side will not be under the jurisdiction of the park authority TANAPA, and park rules of low speed limits and daytime only driving will not apply. With the building of a road through Mikumi National Park in the east of Tanzania, TANAPA insisted on traffic calming

measures including checkpoints and speed bumps. However, following pressure from the transportation industries complaining that these were delaying traffic, they were forced to drastically reduce the traffic calming measures.

Previous experiences in Tanzania therefore suggest that traffic through the Serengeti is unlikely to be controlled effectively. Enforcing speed limits is particularly difficult in these remote areas, so high speed travel through the region will greatly increase collisions and both human and wildlife fatalities will rise. Pressure will therefore mount to employ measures to reduce accidents, inevitably leading to areas of the road being fenced.

Fencing the road would halt the migration, preventing access of millions of herbivores to water and food. The effect of fencing on herbivores is well known in recent African history. The fencing of Etosha in Namibia blocked the migration of 30 000 wildebeest, causing a population crash to 2000 individuals. This also saw a loss of 18 000 Burchelle's zebra. In Botswana's Kalahari, wildebeest only migrate in times of food and water shortages. Fences were erected in the 1950s to protect livestock, but in doing so they blocked the wildebeest migration. In the droughts, estimates of wildebeest deaths in a single year range from 52 000 to 80 000, an avoidable catastrophic loss. The total effect of fencing the highway can only be predicted, but the loss of the one of the greatest migrations in the world would be inevitable, and population crashes of these key-stone antelopes could alter the ecosystem completely.

The consequences of building the highway will affect the Serengeti ecosystem from numerous angles, not only by decimating its large herbivore populations. The Serengeti has one of the highest carnivore populations in the world and is a haven for endangered populations of lions, cheetah and wild dog. Collapse of the wildebeest and other ungulate populations would result in collapse of the carnivore populations, not only in Tanzania's Serengeti, but also in

Populations of cheetah and other predators will collapse if the highway decimates their prey populations



Photo: animalsspecies.blogspot.com

Kenya's Maasai Mara where populations rely on the annual return of the migration.

But the highway will not only affect species population dynamics. Increased traffic on the road will help to distribute invasive species which can outcompete native species, particularly plants as seeds can often stick to tyres. The road will also be a source of chemical pollutants which would leak into water systems and build up with the rains, causing unknown damage to the ecosystem.

Improved access will also increase the human impact on the park. Human settlement and agriculture will greatly increase, destroying habitat. Further to this it will result in easier access to gangs of poachers of ivory, rhino horns and bushmeat. This is particularly worrying to the black rhino reintroduction programme underway in the Serengeti, the continuation of which is threatened by the highway proposal.

The Serengeti highway threatens the entire Serengeti ecosystem. With the potential to become a major commercial route, the road will carry hundreds of vehicles and alter the composition of species and jeopardise the conservation of numerous species.

### *Unexpected economic costs*

The Serengeti highway will not only be costly to the environment, but will have a definite impact on the Tanzania's economy. The Serengeti tourism industry brought in US\$824 million in 2005, forming 23% of all foreign income. Tourists are drawn to this famous park for its "siringitu" – Swahili for endless rolling plains – as well as its

great migration and large population of carnivores. Population crashes, disruption of the plains, and high speed will simply drive tourists elsewhere.

The Serengeti is central to Tanzania's entire tourism industry, and the revenue from the Serengeti National Park is greater than any other in the country. The highway could considerably reduce the number of tourists entering Tanzania and greatly impact the country's whole economy. The effect of this loss of income will not only be felt by every person employed in the industry, but also on ecosystems and species all round the country. Some of the income generated by tourism is used to fund numerous conservation efforts, particularly in maintaining many other protected areas that are less often visited by foreign tourists. The drastic drop in tourists and consequential drop in income will spell the collapse of conservation in Tanzania.

Serengeti National Park is currently a World Heritage Site, recognised for its exceptional natural habitats and particularly for the great migration. The World Heritage Committee has expressed strong concerns over the irrevocable damage the highway is likely to cause and are urging the Tanzanian government to reconsider its decision. If the highway is built, the Serengeti may lose its World Heritage status. This will emphasise that the committee no longer believe the region to be exceedingly biologically and ecologically important, reducing funds, tourists and important conservation efforts.

Currently, the Serengeti's greatest competitor for tourists is the Maasai Mara, its counterpart across the border in Kenya. Destruction of the great migration, transformation of the whole ecosystem and



Photo: www.ruanaich.com

The Serengeti has one of the greatest concentrations of carnivores in the world, drawing tourists from all over

retraction of the World Heritage status will ultimately knock the Serengeti and the Maasai Mara off the top two spots on the ultimate safari destination list.

Building the Serengeti Highway will incur substantial unexpected economic costs. The impact on tourism and loss of foreign aid will come as a huge blow to many Tanzanians.

### *The Alternative Choice*

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President Jakaya Kikwete has said that the only way to connect the people in the north west of the country is to build a road through the north of the Serengeti National Park. Many scientists and conservationists strongly oppose the highway including the Wildlife Conservation Society and the Zoological Society of London. Twenty seven conservation scientists signed an article in the prestigious science journal Nature condemning the plan.

An alternative southern route has been proposed by the Frankfurt Zoological Society which has been involved in scientific research and conservation in the Serengeti for over 50 years. This would pass south of the Serengeti National Park, connecting the road networks west and east of the park. Although the route is 50km longer, it would only require building an extra 35km and would avoid the 500 metre cliff face of the Rift Valley. The southern route would also

serve five times as many people, reaching 2.3 million as opposed to 431 000.

The southern route will also have a social and environmental impact, although these will be much less than the northern route, and with good planning, these can be minimised. The World Bank have offered financial support if the Tanzanian government choose the southern route.

### *The Best of Both*

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Tanzania's first president Julius Nyerere pledged to "conserve our precious heritage for the benefit of future generations". With the building of the Serengeti highway, the current government will have lost the foresight of their first independent leader.

The Serengeti highway could destroy the great migration, decimating the greatest concentration of grazing animals on the planet. Is the loss of one of the greatest spectacles on earth, an acceptable loss? With the population of Tanzania now 33 million people greater than when many of the protected areas were designated, it is important to find a way for wildlife and humans to coexist. The alternative road would prevent the people of Tanzania from sacrificing their development as a nation or their exceptional wildlife, tourism revenue and their heritage.

Photo: [travel.ezinemark.com](http://travel.ezinemark.com)

