

NARRATOR

It is estimated that the poaching wars in Africa during the late 70s and 80s killed off more than 60% of the African elephant herds.

With an international ban on ivory trade in existence since 1989, the herds have stabilized with some countries even facing over-population.

But a recent ivory bust in Singapore, raises questions about the security of some of the African herds.

Dr. Sam Wasser, University of Washington

ivory is essentially an incisor tooth that has evolved into a tusk.

NARRATOR

Man has carved ivory into beautiful objects and traded it since the stone age.

Sam Wasser

the drive for ivory just seems to be the fact that it comes from a very majestic animal.

NARRATOR

So majestic and hard not to miss, in fact, that the ivory poaching wars in Africa during the 70s and 80s killed many of them off.

NARRATOR

Elephants went from 1.3 million ... to 600,000 elephants in ten years. And that loss of 700,000 ... just surprised ...the world.

In 1989, Kenya burned 12 tons of elephant tusks in a dramatic protest to persuade the world to halt the ivory trade.

Some say it was a publicity stunt.

But later that year, more than a hundred member countries of CITES -- the Convention on International Trade in Endangered Species of wild fauna and flora -- voted in favor of a world-wide ban on the trade of ivory.

Along with the ban came strong international support for wild life law enforcement.

Michael Wamithi, International Fund for Animal Welfare

To address the issue of run-away poaching, which was decimating wildlife a crack unit was recruited and trained. We weakened the strong networks that had gained root in Kenya over time so it became more expensive to get involved in wildlife trafficking and it really went down so between 1990 and 1996 we were able to be in control of our national parks and that system was deemed necessary.

NARRATOR

After the ivory ban went into effect, African elephant populations seemed to stabilise, with some countries even reporting over-population of herds.

But the illegal ivory trade is still with us and takes its toll on more than just elephants.

In the past year three Kenyan wildlife rangers and four poachers were killed in a shootout in the Tana river district.

Julius Kiping Etich, Director, Kenya Wildlife Service

The manhunt for the poachers is still on. There were seven, we killed four what happens is that during the rainy season the poaching activity goes up this is a cyclic thing, they come usually at this time.

NARRATOR

There's more. The past 6 years has seen a steady increase in the tonnage of ivory being seized in cargo containers in different parts of the world.

The first inkling there was a major problem was a container seized in Singapore back in 2002, in a case that is still ongoing.

The story began in Lusaka, the capital of Zambia.

Dr. Lewis Saiwana, Director General, Zambia Wildlife Authority

The information that I had received was that there were some Chinese in Malawi who were running around collecting ivory from Eastern province taking the ivory to Malawi.

So I supported the investigations by the officers on the ground.

Undercover Agent, Zambia Wildlife Agency

What we do is collect data, put it together. This is a local matrix for the network of ivory collection

The connecting syndicate

NARRATOR

Painstaking undercover work revealed an elaborate poaching syndicate.

Man

We picked up some documents which show the weights and the values of the ivory which had passed through those offices. There was evidence of ivory changing hands on 28 March 1994, 14 September 1996, 2800...

NARRATOR

The data suggested the syndicate had been killing Zambian elephants for at least the past eight years. They smuggled their tusks across the border into neighbouring Malawi. Hidden workshops would partially carve and package the ivory for shipment to the Far East.

Coordinating their efforts, Malawian and Zambian wildlife authorities raided one such illegal workshop in 2002.

Alphius Lipiya, Wildlife Officer, Malawi

When this syndicate issue came about, we decided to go and check ...

We went there we found quite a number of tusks.

They had a room where they were they were fashioning the ivory and most probably where they were loading the consignments that they were exporting abroad.

And that's when we thought, no, this guy is no good we should arrest him and we confiscate all that he has in terms of these ivory pieces.

This could have been close to ten or twenty elephants – just this lot here...

NARRATOR

The ivory waste material showed this facility was punching out personal signature stamps – hankos, as they are known in Japan. They were then shipped overseas.

Because of the potential involvement of an international crime syndicate, the Zambian authorities asked the Nairobi-based Lusaka agreement task force to further assist in the investigation.

Kisamo E. Stephen, Director, Lusaka Agreement Task

The Lusaka Agreement Task Force is an operational arm of the Lusaka Agreement, and the agreement is all about fighting wildlife crime and in particular in illegal trade in wild fauna and flora.

NARRATOR

An undercover task force agent went to Ilongwe. There he hooked up with counterparts from Zambia and Malawi.

The first thing the team did was look into shipping companies...

Undercover Agent, Lusaka Agreement Task Force

We went to Manica, Malawi, a freight forwarding company... they showed us documents concerning a container which had been exported a month before ... when we closely examined the documentation..., we realized there were so many anomalies we reached the conclusion that what was exported was not soft stone sculptures, as indicated.

It was loaded on a truck... went by road through the boarder post of Mwanza, in Malawi ... to the port of Balar, in Mozambique – and there it was loaded on a smaller vessel called “Infalozie”, and from there it went to Durban ... it was loaded onto a much bigger vessel – The More Independence...

NARRATOR

To their surprise, the team learned the ship was to dock in Singapore the very next day.

Undercover Agent

That almost threw us into a panic because Singapore is very far and we thought if it reaches there, it could easily disappear.

I immediately telephoned the acting director of the Lusaka Agreement Task Force telling him of our findings and requesting him to send the message urgently to the Singapore authorities, to look for this container

Kisamo E. Stephen

That container was ultimately intercepted and it was found to have 6.5 tons of ivory.

NARRATOR

But where did the ivory come from?
Where were the elephants killed?

The container full of ivory was released to the Lusaka Agreement task force and sent from Singapore to Kenya for forensic analysis.

Undercover Agent

My impression when the container was open was that the people who were exporting this ivory were highly experienced. The packing was done very very well, they were not learners. When you imagine all of the animals that were killed it's really shocking.

NARRATOR

Packed into six wooden crates were five hundred and thirty two tusks...

And over forty one thousand blank hankos – destined for Japan.

Scientists from the Sokoine University of Agriculture in Tanzania took samples of the ivory to discover where the elephants had been killed.

The scientists and the investigators turned for help to the University of Washington in Seattle, and a new DNA forensic technique.

Sam Wasser

These are the hankos that were seized in the Singapore seizure.

DNA in the elephant provides essentially a signature of who the elephant is. And it also provides a signature of where the elephant actually came from.

For both the tusks and the hankos, one of the critical questions was 'Did this all come from one place or did it come from multiple locations across Africa? Initially, almost everyone thought it came from multiple locations across Africa.

NARRATOR

The first step in the DNA extraction process is to take a sample and pulverize it.

Sam Wasser

People in the past when they were trying to pulverize the ivory they would often heat it up using saws or drills or what have you, in taking the powder, it would heat up and degrade the DNA.

And what this does is it keeps the DNA at about minus 200 degrees celcius

NARRATOR

Liquid nitrogen is used to cool the sample down.

Sam Wasser

So that's the real important breakthrough in this whole method, is that it allows us to pulverize it into a fine powder without degrading the DNA, which is the key.

Now we can use a standard tissue extraction kit for DNA and because it's been processed so thoroughly... Once we extract the DNA and get pure DNA, the next step is to amplify the DNA from the product.

NARRATOR

The end result ... a genotype is determined for the ivory sample. ... but that doesn't get you very far.

To be able to assign ivory to a geographical origin – the whole point of this analysis -- you have to be able to compare it to something.

Sam Wasser

We have to create, essentially, a geographic reference map of elephant gene frequencies across the whole continent of Africa ... wherever elephants range.

NARRATOR

And that's done by taking samples of elephant dung in the field, extracting the DNA ... and producing a map.

Sam Wasser

It's that reference map that we use to compare to the genotype in the ivory to assign its origin.

NARRATOR

At the end of the day, the DNA analysis offered up some solid answers.

Sam Wasser

What was really exciting for us was we were able to show that not only did the hankos appear to come from the same locations that those 531 tusks came from the same seizure. But we, also, were able to amplify all the shells that they found when they raided that ... hanko punching facility in Malawi. ... So what that meant was that all of these ivory ... all had similar origins...

Dr. Lewis Saiwana, Director General, Zambia Wildlife Authority

The DNA study points to Zambia as the country where this ivory came from.... it's a very serious omission on our part, because we should have constantly been in the area, where these people were, you know, as they were trafficking the ivory.

NARRATOR

The ringleader fled Africa soon after the container was intercepted in Singapore. Zambian and Malawian authorities are reviewing the evidence against others allegedly involved. To date, no one has been charged.

Victor Banda, Malawi Anti-Corruption Bureau

Malawi should be a central point for prosecuting most of these suspects. Perhaps the other angle we need to also look at, not leave it out is the people that this ivory was intended to; those that were buying it in Japan.

Yuki Sakamoto, Japan Wild Life Conservation Society

We know for a fact that Japan is one of the biggest consuming countries of ivory.

Ivory was mainly used for hankos. It's a personal name seal stamp. Hankos are used instead of a signature.

NARRATOR

It's not illegal to own or sell carved ivory in Japan.

Kazuaki Hoshino, Director Wildlife Division, Ministry of Environment

Japan introduced domestic regulation system. The main purpose of this law, to conserve domestic endangered species but at the same time, we use this national registration to control domestic trade of internationally endangered species.

NARRATOR

According to the law, ivory carving shops, and the tusks they use should be government registered.

Kazuaki Hoshino

This kind of system, I believe, is very effective in Japan to control domestic trade of the ivory.

NARRATOR

A hanko is sold with a certificate showing it was made from registered ivory that was in the country prior to the 1989 ivory ban, or was part of a one-off sale by southern African countries in 1999.

However, Japan's registration system is only voluntary.

Yuki Sakamoto

There is a big black market of ivory in Japan. ... the illegal traders try to register illegal ivory as legally imported before the ban, and successfully register it.

NARRATOR

So even if a hanko has a certificate, it is unclear if it came from legal or smuggled ivory.

There is an argument that lifting the ivory ban and legalizing trade would help certain African countries which complain they have too many elephants.

Tom Demeuleauer, Co-ordinator, CITES

In East Africa and Southern Africa, elephants are doing well, surprisingly well, to the point that actually they... some countries could call them problem animals.

Kazuaki Hoshino

The elephant kills local people. And the elephant give the- very big damage to the farmer, to crops. So those are very, very severe problems...

NARRATOR

It may be lifting the ivory ban will decrease the poaching of elephants.

Tom Demeuleauer

Some would argue that actually by providing a legal market supply of ivory from well-managed elephant populations into well-managed markets, you're going to undercut poaching and reduce the need for illegal trade in ivory. Others say no, by organizing a legal market you will per definition enhance the existing illegal market.

NARRATOR

In the meantime, while this argument goes back and forth, the story of contraband ivory, like that found in the Singapore bust, is far from over.

During the investigations, it was determined that the container was only one of perhaps a dozen such containers that had been shipped from Malawi.

Tom Demeuleauer

In 2004, globally we documented about 10 tons of ivory being confiscated, in 2005, 17 tons, in 2006, a jump to 25 tons of ivory. So, clearly, something is happening.

Sam Wasser

It's clear that the illegal ivory trade is completely out of hand right now. It's to everybody's interest, whether you are pro trade or against trade, to get the illegal market contained so you can justify whatever you're trying to do, be it sell your ivory or not.

NARRATOR

But that's easier said than done. Criminal syndicates span the globe, while cooperation between relevant enforcement agencies is often lacking.

Kisamo E. Stephen, Director, Lusaka Agreement Task Force

The issue is that law enforcement needs support. From all levels. From international, national, regional... we need to invest in law enforcement...

Yuki Sakamoto, Japan Wild Life Conservation Society

I think if the Japanese people understand the situation of elephants well, they will hesitate to buy ivory hankos anymore.

Kisamo E. Stephen

The elephant is a keystone species... it plays a big role in the ecology of protected areas. And even in the economic development of our countries, most tourists will like to come and view elephants – they don't want to come and see the carcasses in the field.

With thanks to

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