

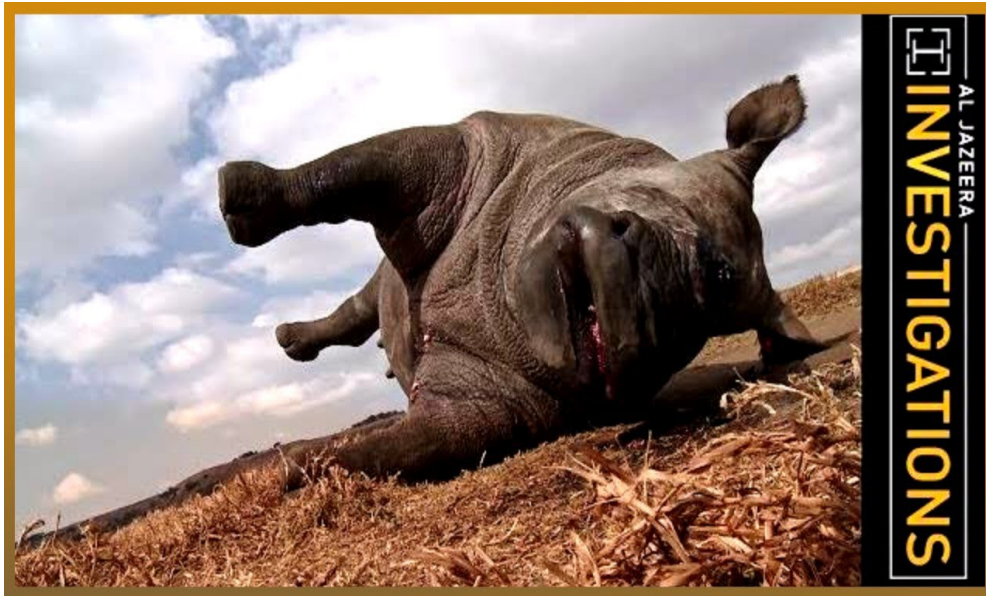


RHINOS



A detailed account of precisely what's happening.

We know corruption is rife and at the highest levels of governments so it was never going to be an easy fix. But with sickening sights like these occurring all too frequently we need to fully comprehend how the systems of organised crime work. By understanding that maybe we can work out how it can best be tackled and in order to do that there is no better way than to follow the documentary we've outlined here.



Al Jazeera's Poachers' Pipeline goes undercover into the heart of the matter. It explains more deeply than most who's involved, what's going on and who's doing what. But rather than simply watching the film we have typed the entire relevant transcript onto the written page. By doing that anyone can follow it through at their own pace and besides which films can be pulled from view at any given time. We just felt it was too good not to use.

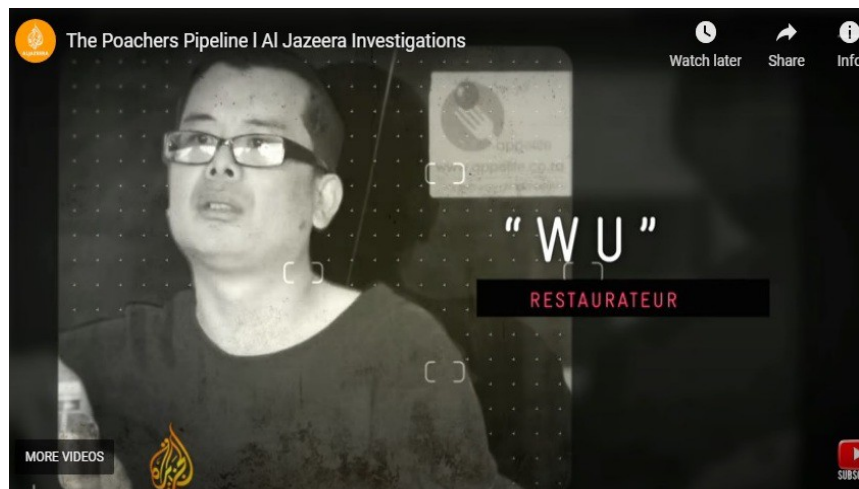
The narration is given in the third person, we've put our own take on it as and where needed, but other than that it more or less sticks faithfully to the original text. **At the end of it we've also included a meaningful discussion on how we might move on from this appalling situation and put an end to this wasteful trade once a for all. Please see pages 25-26 for that and there's more on 31.**

But first let's go through the text page by page and you will get the full picture as to exactly what's going on.

The Poachers' Pipeline.

Aljazeera's investigative unit is infiltrating the illegal supply chain of rhino horn from the kill in Africa to the sale in Asia. "It's a huge amount of money that's worth more than gold or platinum." Rhino horn is now one of the most profitable commodities on the international black market driving the slaughter of an endangered species. "But it's not the rangers that are going to make the ultimate difference of the survival of the rhino or not." "It's whether we address the organised criminal syndicates." They expose a dealer in South Africa who claims to have powerful friends. "Organised crime can only flourish in a corrupt environment and until we can fix our corruption here we will never ever stop the poaching." They go inside a Vietnamese village which is a thriving hub of wildlife trafficking. "You are dealing with very powerful people." "People in influential positions in government who are buying up and using rhino horn" And they investigate the explosive claim that even some close to the Chinese president are part of the poachers' pipeline.

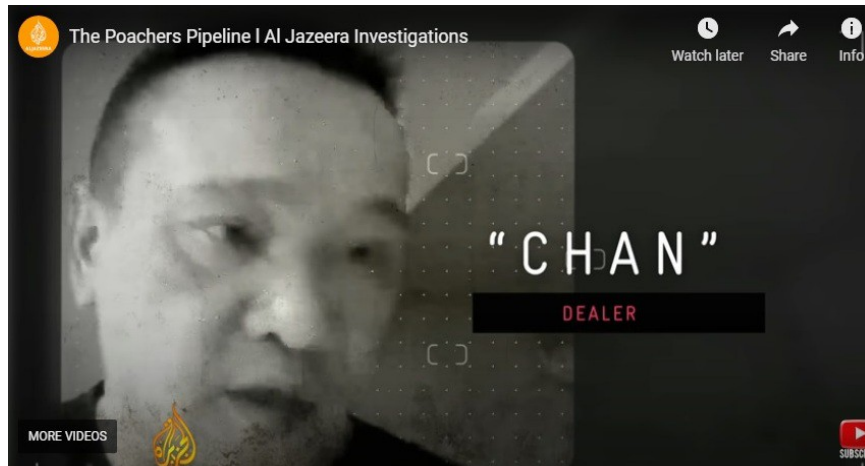
In the heart of Johannesburg is the China Town area. Their undercover team is searching a product that's been illegal to trade internationally for forty years. "What about rhino horns where can I buy them?" "There are people out there who sell those every day." "You need to know a middleman for rhino horn." "You tell them when you want it and what you want they sell it secretly." "There are many weirdos in South Africa." "They are obsessed with animal protection." "That's very dangerous and troublesome."



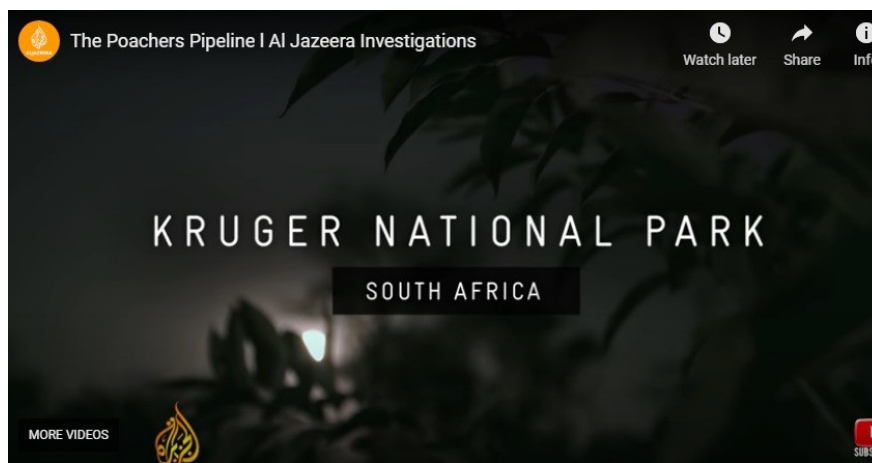
They believe this man's name is Wu Jang Kur he runs a Chinese restaurant. In his house they took pictures of his own collection of products from endangered species. Ivory chopsticks, pangolin scales, abalone shellfish to rhino horn bracelets, all illegal but he says horn is the most risky. "Not to sound harsh." "If you sell fake you can get your head blown off." "Seriously." "Anytime." "They'll fking kill you." "It's very possible here." "If you really want those horns I can try to ask for you."**



He gives them directions to a dealer he knows. "Once you get under the Shun De Building there is a shop called Wooden Art Place."



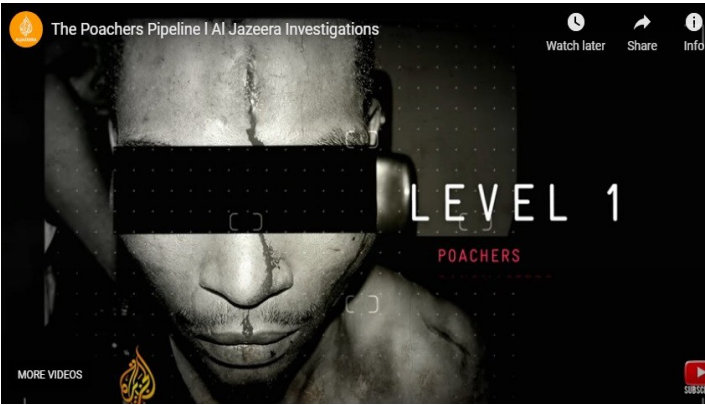
"I was hesitant to see you at first but you were introduced by someone I know." **They were told his name is Chan. He led them through several locked doors to his storeroom.** "All this trade has gone underground." "Never in public." "It's very sensitive recently." "What is this?" "This is also rhino horn." "Is this the front horn or back horn?" "Front horn." "Only front horn is expensive." "Back horn is cheaper." "The others don't have stock like me." **A complete front horn can weight six kilos, the stumpy back horn more like two, a set costs hundred of thousands of dollars.** "We also have tiger teeth and lion teeth." "And here's the tiger teeth." "Why do you have tiger teeth?" "Why not?" "They are all 100% authentic right?" "I would never sell any fake product." **Many visiting Chinese consider horn in particular the ultimate status symbol to acquire in Africa. Their investigation reveals it's a view that goes to the very top of Chinese society.**



A full moon in South Africa's most famous national park. It's known locally as a 'poachers' moon'. When it lights up the bush the slaughter peaks. This is 20,000sqkms of park with about 400 rangers to protect its most vulnerable species. About 25,000 rhino are left across Africa, 6,000 have been killed in the last decade, the biggest single population, about 9,000 is in the Kruga. "Even if there's poachers they can hear the noise and run away." They're out with a team of park rangers and police to log a crime scene. "The vultures are scared of the sound." "See they're flying away." "There's the carcass." "There's no lions." "We're going to give the police a chance to go and inspect the scene first." "See if there's any exhibit that is lying around they must first mark them." "What kind of exhibits." "Like a bullet point maybe like shoe print of the suspect."

The carcass was spotted by rangers days ago but with two or three kills a night they've only come to inspect it now. "I think he has found something." "A spent cartridge." **There's a gaping hole in the head where poachers hacked out the horns.** **One bullet, one night's work, one fewer of an already endangered species.** "This is a hotspot." "It's where we lose most of the rhinos." **Nicholas Funda is the park's chief ranger. The park's eastern edge borders Mozambique the poacher attack from both countries.** "I think they cross up north they drive down, all the way, that's where their killing spots are." **The set of horns from this adult rhino can sell for up to a quarter of a million dollars on the black market the poachers get about a tenth of that because they are just villagers at the bottom end of a criminal chain.** "The poor people we deal with them in the park most of them they don't own the firearms, they're hiring firearms, that means they work for someone."

In legal terms the poachers are known as level 1s. Above them are the level 2 gang masters who organise and finance the kills. They sell onto level 3 dealers sell onto those who export horn. Level 4s are the importers. And finally the consumers level 5s.



Poachers the level 1s.



Above them the level 2 gang masters.



They sell onto the level 3 dealers.

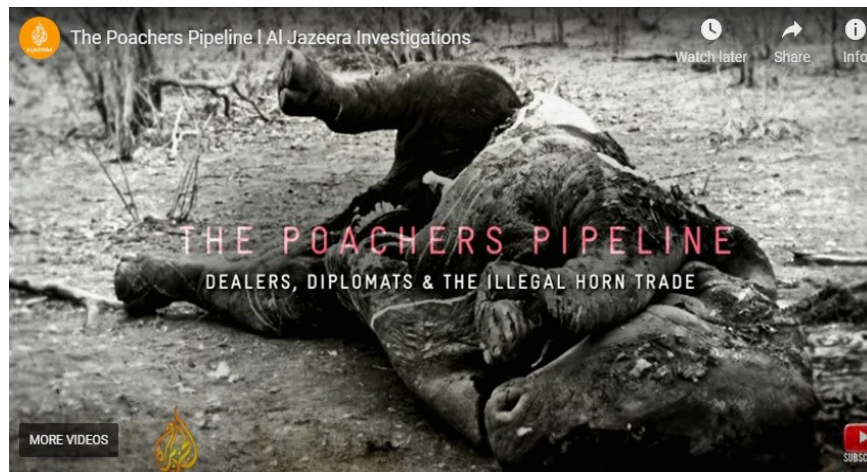


The level 4 importers.



And finally the level 5 consumers.

"We will never ever win this fight if we focus only on the level ones and forgetting the other levels that a not walking and coming to pull a trigger into the Kruga National Park." **It's a hierarchy of crime extending far beyond the Kruga.** "These are organised crime syndicates but the challenge is, these people you don't find them in the park, you don't find them with firearms, you don't find them with you don't find them with the rhino horn." "You find someone who's sitting in Vietnam or in China, whether the chances that you can link that person to rhino that has been killed the Kruga National Park the chances are very slim."



While the carcass rots under an African sun the horns are destined for Asia, cut up for jewellery, ground into medicine, or kept whole as a sign of status and wealth. "It's so emotional because it seems as if by the year 2020 we're not going to have any rhinos left."



Guan Jiang Guang

On the edge of the Kruga is the city of Nelspruit. Their investigation concentrates on the key mid level dealers who facilitate the trade between Africa and Asia. Like Guan Jiang Guang a Chinese businessman who lives there. He runs a massage parlour and employs some illegal workers but gets around the rules easily. "F**k." "Everything in Africa is based on money." "Everything." "I give the immigration department about 70 dollars each month." "They don't even investigate." "Give who?" "Two guys at the immigration department." "Do you know many people in the Government here?" "You don't have to know many people." "Government business is all about money." **They've been told he buys horn from fresh kills and that makes him a level three trafficker.** "These days a lot of people are buying the whole rhino horn and making it into sculpture." "They display in their homes." "To give to friends as a gift?" "That's because the Chinese have a lot of money to spend." "It it easy to buy some rhino horn?" "If you need some I can help you find it." "Be careful." "If a black guy tells you he has horn, after you pay, the police arrest you." "You lose the horn and get fined at least \$70,000." "In South Africa the quality should be good right?" "The good horns are the dry ones." "We have to dry the wet ones." "They lose a lot of weight." "Recently a black gut showed me a massive horn." "Is it a front horn or a back horn?" "Front horn." "Back horn is this long." "Front horn is this long." "Do you have any front rhino horn now?" "What's the price for one kilogram?" **Guan leaves a message for one of his contacts and says he'll get back to them with an answer.**

“Rhino horn has certainly become a commodity that's worth more than gold or platinum.” “You are dealing with networks that span the globe.” **Julian Rademeyer is an author and annalist who's exposed numerous wildlife trafficking rings across in South Africa and Asia.** “These are very very sophisticated business operations whose sole purpose is to obtain a product, get that product to market, and they're utterly ruthless at doing it.”

The Voi Game Lodge.



He's been tracking events at a game reserve west of Pretoria. It's one of many privately owned farms which keep rhinos.



The owner is a Vietnamese tycoon (Michael Chu) who was arrested in South Africa, convicted of rhino horn smuggling, and ordered to be deported. “I do find it a bit odd that someone with a conviction for rhino horn smuggling would be able to obtain permits to keep rhinos on a farm.” **Julian suspicion is the reserve VOI Game Lodge may be stocking rhinos to be killed for their horn.**



One of the regular visitors to Voi was (Chu Duc Gu Lit) (left) a Vietnamese man who was arrested in a police raid at his home in the capital Pictoria. “They found close to a dozen rhino horns, some of them were buried in their back garden, a number of them were from fresh kills, the bases of the horns were still damp, still wet, and they also found a vehicle that was parked in the garage that had a specially made secret compartment in it for transporting rhino horn.” “Someone in the house was busy cutting up the rhino horn because it was found stuck in the band-saw in the garage.”



They discovered just hours before the police raid the house was visited by one of the Vietnamese who runs Voi farm. His name is Van Tam Chu and he calls himself Beckham. They've spoken to people who know Beckham and his Vietnamese colleagues and suspect them of involvement in poaching. One source can't be identified for his own safety so his words are read by an actor.

“The Vietnamese guys would ----- behind other private farms with rhinos and take photos.” “One night they went out in their truck and came back in the early hours.” “Their cloths were blood-stained and there was blood in the truck.” “They changed and ordered staff to wash the vehicle.” “You couldn't see what was inside it.” “Then they told to join ----- to a Vietnamese restaurant.” “There were several late night journeys like this.” **Beckham has reported several incidents of rhinos killed on his own farm. The last time was shortly after their visit.** “The poachers killed one rhino out right, one died later, they hacked the horns off the third one while it was still alive.” “The poachers seemed to have plenty of time.” “There were no staff on the farm.” “Beckham had taken them all out for the night.” **There are also tigers at Voi, Beckham has shot one, but the farm claims many others had died from natural causes.** “At the back of the farm there's a building with gas burners and big pots.” “They cook the bones to make the gel that's called tiger cake.” “They find people to carry it back to Vietnam.” “Sometimes it's just posted back.” “A dozen new tigers have just been delivered.” **Exporting tiger cake is illegal but in Asia it's valued as a medicine and as a status symbol just like rhino horn.**



They have another meeting with the level three trafficker Guan. This time he gives more details about how he stays in business despite his criminal past. “I opened a gambling den when I first came to South Africa and got caught.” “I went to court and was given a criminal record.” “Now I’m asking someone to clear my record.” “How do you clear it?” “Go to the Department of Justice and pay to clear my record.” “Pay under the table money?” “Then you can clear it?” “Yes, yes.” “How much does it cost?” “Very cheap, a few thousand.” “I can get people from the government offices.” “I can find them.”



“Head of South Africa's State Security Agency, David, a guest at my home.” He's talking about help at the highest level a special contact David Mahlobo.



He was a senior official in the Nelspruit area until 2014 when he became a government minister. “He came to my massage parlour every week or at least twice a month.” “I know him very well.”



Minister Mahlobo controls South Africa's intelligence services including the State Security Agency which annalises organised crime.

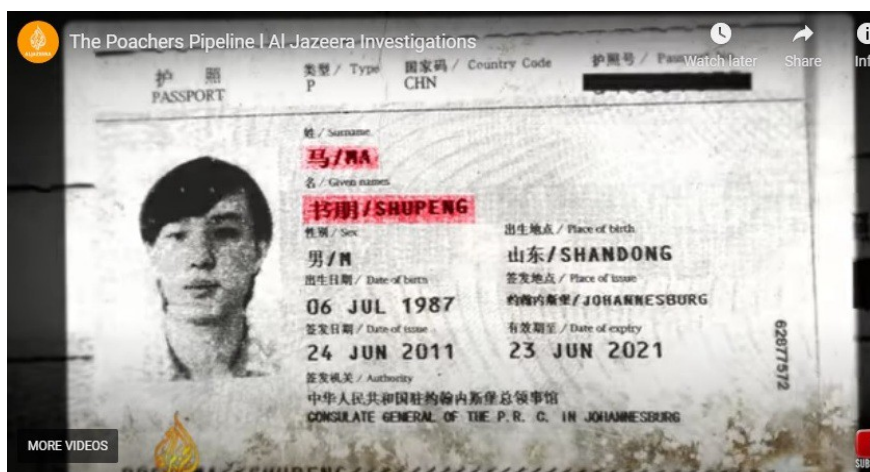


Guan shows photos to prove their relationship. “So this is the State Security Minister of South Africa.” “The guy in the other picture.” “Is that his brother?” “It’s all David.” “He was our guest.” “He used to live here.” “Who’s the young girl?” “One of my manicure girls.” “Your friend, the minister, he doesn’t do any business, does he?” “Only his wife.” “He doesn’t do any business.” “Whenever there is a big project his wife is out front.” “He is behind the scenes.” “It’s very common in South Africa that the wives are doing business the husbands are acting officials.” “If anything happens they will mention their husbands name.” “Official will never do business in their own name.”

Investigations.

Those trying to combat the criminals behind the rhino trade say their efforts are hampered at every level by corruption. “There’s huge profits to be made.” “They able to buy their way at political levels, into police, into customs, so they undermine the whole law and order structure to get their way.”

Nigel Morgan has spent decades in the shadowy world of intelligence. His foundation Focus Africa now gathers information on wildlife traffickers. “We were invited to the Kruga National Park to set up an operation’s centre on the rhino problem when it was at its height.” “Our operation led to 61 arrests and a database 2,603 individuals profiled.” “But we felt strongly we needed to go and disrupt the level threes the buyers and get into the pipelines.”



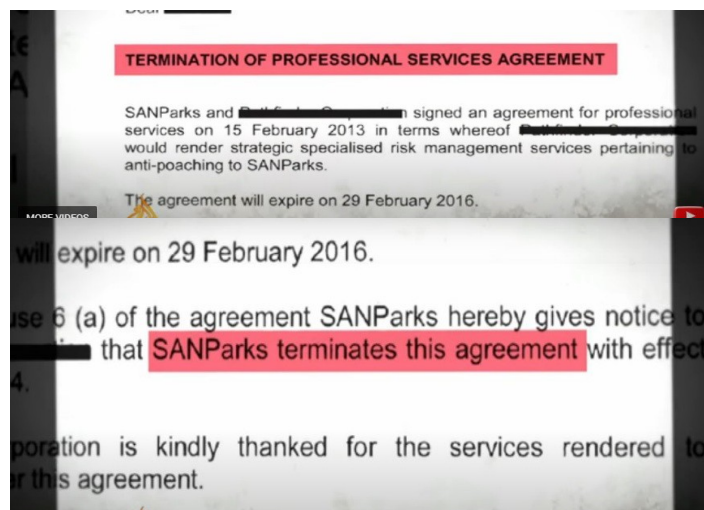
His intelligence team closed in on a suspected buyer, a Chinese national known as Eric, they've seen a confidential police document confirming his identity as Ma Shupeng. “He was operating at a warehouse near OR Tambo International Airport in Johannesburg and is a professional trader in endangered species.” **Working with the police from the Kruga Park they set up a sting operation offering Ma a genuine rhino horn. An intelligence annalist involved in the deal describes what happened.** “This deal was set up to happen at Emperor's Palace casino complex, there's hotels there's gaming, the agent bought two rooms.” “One room would be where they do the deal a second room right next door would be where the taskforce would be waiting.” “The task team arrested both individuals in the first bedroom and police members that were situated in the ----- also arrested a third individual.”

Corruption.

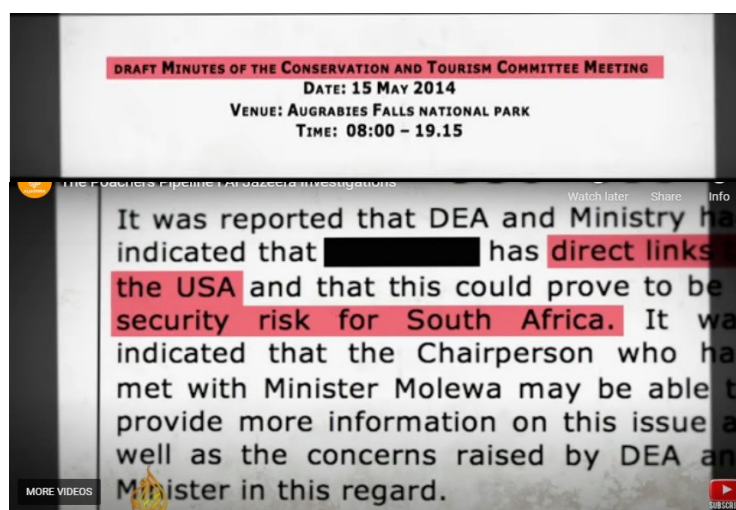
“So three people arrested, having taken possession of horn and having paid for it, it should have been a slam dunk conviction.” “Indeed it should have been.” **But the police document shows that didn't happen. One man was fined and the other two including Ma walked away unpunished.**

“Something seriously went wrong after those Chinese were arrested because they were allowed out on bail and they disappeared.” “It could of course be a coincidence but I think these arrests, which took place on the 22rd of May, and on the 3nd of June we received a letter terminating us.” **Their contract with the Kruga was cancelled without explanation and Nigel Morgan suspects why.** “There was concern that because we were funded by American money we were somehow a threat to national security.” “Who had said that?” “It's a records in the minuet.” “Obviously I think it was a disgraceful decision.”

Friends in high places.



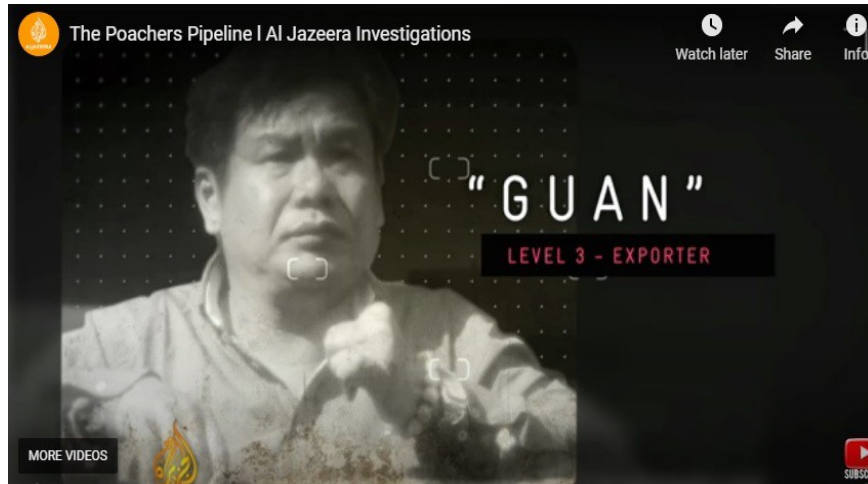
Minute from the South African National Parks.



Minute from the Government Department.

The minutes was from the Parks Department but they've pieced together a link beyond that from the Minister of State Security. A new minister took office just a month before the contract was cancelled. He's repeatedly accused organisation which receive overseas' money of undermining national security. He's the same minister David Mahlobo that the level three Chinese trafficker considers a 'useful contact.'

"Well we know there were elements in the police, political elements that were getting scared, that we were too close to some people higher up the line." **David Mahlobo's spokesman told them the minister wasn't involved in the affairs of the Kruga National Park. He denied receiving services from Guam, going to his house or any relationship with him. And said his wife didn't do business on his behalf.**



Their undercover team had already met a Chinese trafficker who offered to supply them with rhino horn. His name is Guan Yung Wan. He reveals he has high level contacts in official positions in China who can help smuggle the horn. "If you want to do it to bring it back to China I have the channels at Beijing Airport." "You pay the customs declaration before you fly." "Send the luggage number to our Beijing contact." "Someone will collect your luggage in Beijing." "You don't even pick it up?" "No, someone gives it to you outside." "The source in Beijing works at the airport." "He's quite influential." "I think he's a princeling from a powerful family." "He specialises in this." "He's untouchable." "Definitely no problem in Beijing?" "Absolutely not."

Guan stays in contact using WeChat the Chinese messaging service to discuss the supply. "Nothing in stock right now." "The crackdown is very tight." "Even two years ago I saw a saw a lot of 7.5kg front rhino horns." "It was common." "I will get back to you tomorrow." "I'm still sourcing it for you." **He then comes back to say there are no full horns available so they should buy in China and he'll arrange it.** "Good morning." "My Chinese contact got back to me." "Very expensive, f**k, the price is outrageous." "It's risky to get it back to China so they want a high price." "I suggest you buy it there."

Guan's man in Fujian China.



So they contacted Guan's man in China. He's in the southern Province of Fujian. In the criminal supply chain the dealers selling imported horns are known as level 4s sellers. The seller here calls himself Yang. Before they met he sent them pictures of a back horn for sale. "Did you see the photos?" "No problem with them?" "So today you want to make sure it's real?" "Yes, see it and check it's real." "Any problem with the price?" "The price according to Mr. Guan is over \$15,000." "It's \$27,000 per kg." "\$27,000?" "Shall we look at it here in the car now?" "Okay." **The asking price on the day \$60,000.** "This is exactly 2.25kg." "How long ago was it cut?" "Why's the smell so strong?" "A few years." "The smell's always been there." "Normally the smell fades?" "The smell stays." "It looks like it's been cut on the bottom here?" "No." "That's how it was." "Now you've seen it how is it?" "When can we confirm the deal?" **They didn't buy and they didn't contact him again.**

Now in Vietnam.



"The nick name, the Vietnamese nick name of the owner of this house is Uncle Rhinohorn, so that tells you something about his involvement in this trade." "The woman is the lady of this house so she's the wife of Uncle Rhinohorn and very much involved in this illegal trade." **Pauline Verheij works for the Wildlife Justice Commission in Holland. They've created a powerful dossier indicating the Vietnamese government is directly complicit in perpetuating the trade. They've filmed secretly in a Vietnamese village and shared this footage exclusively with Aljazeera.** "Initially she brings in a bag of some ivory products the Chinese guy's examining it."



This is the end of the supply chain where the level 4 dealers sell to the level 5 consumers. "You can see that they're not crazily interested yet." "The mood really changes when the big rhino horn been brought in." "Here the lady of the house drops a big rhino horn on the table." "I think they're mostly interested in the weight and the price and she will respond it is 25,000 dollars per kilogram."

For centuries Nhi Khe Village was famous for wood carving now those skills have turned it into a hub of wildlife trafficking. “We found several shops signs there which say ivory, rhino horn, tiger and very clearly advertising these items for sale.” “A place like this cannot exist without local authorities being in the know and facilitating it.” **The Dutch team handed their confidential dossier on over fifty local dealers to the Vietnamese government. They hoped the authorities would close down the criminal networks operating only twenty miles from the capitol Hanoi but the business simply went underground.** “The open trade has disappeared, so you won't see shops openly selling ivory and other illegal wildlife products any more, but they are still selling, because we still track these people on open media.” “So I'll just open my WeChat up here, and go to the account of one of the key sellers in the village, all their advertisements show the weights or the size of the products.” “The whole rhino horn on the scale, or rhino tip I should say, but to think of it that's one rhino dead.”



The sellers use WeChat to reach China their major market but buyers still flock to the village to shop direct. “As you see we're not turning that shop area into a side room where our interpreter pulls out huge ivory tusk from under the bed.” “I think it's important to realise that these people are here completely risk free, the Chinese buyers, so they come in, they choose what they want and an extra delivery fee it will be delivered to them at their doorstep in China.” “And have you seen how it actually gets across the border from Vietnam into China?” “Yes, yes.” “Can you show me that?” “Here's some footage with one of the people that do the smuggling across the river.” **The traffickers use another village near Ka Long River which is the border with China then it's a short hop across.** “Now we're already landing on the China border so that's how easy it is.”

The woman who bribes Vietnamese customs.



“What we were told, this woman who organise the smuggling, she is the one who bribes Vietnamese customs to make sure they look the other way.” **The impact of the trade in this one Vietnamese village is enormous.** “In one year this criminal network trafficked a value of around \$43,000,000 US.” “And how do those dollars translate into dead animals?” “We found that around 580 rhinos was involved.” “Almost half the amount of rhinos poached in South Africa every year.” “And that really goes to show you the impact that this criminal network has on poaching globally and it also makes us very motivated that these people are brought to justice because that would really have an effect on poaching in South Africa.”

The Wildlife Justice Commission is making one final effort to force the Vietnamese government to take action on their evidence. “We have sent it to numerous ministries and individuals within the Vietnamese authorities and the reaction has been almost unanimously silence.” “We’ve given them every opportunity now it’s too late.” “So they’ve organised a panel of legal experts to meet in the famous Peace Palace a public hearing to assess the dossier.” “It’s not freedom of trial, we are not a court, but what we are is presenting to the world all the evidence we collected to show what’s out there.” “We are trying to stimulate the international community to get the government to enforce its laws.”

“The people that are buying rhino horn in Vietnam are some of its top CEOs, some of its most senior politicians, people who are government ministers for them it’s the ultimate status symbol.” “Something you can display it’s something you can give as gifts to buy influence.”

Meanwhile back again at Voi Game Lodge.



They found those kind of high powered connections to the Game Lodge. This is the private reserve which Julian Rademeyer suspects is trafficking rhino horn and tiger bones. Over and above those already mentioned there's a forth link to the Vietnamese Embassy in South Africa.



One of their cars was found in a police raid and embassy staff have spent time at Voi. “There are also figures including someone who appears to be a military official who has ties to the embassy.” “That’s a photograph that was taken of him with hunting rifle posing at the farm.”



They identified him as Winch One Hom who served two years at the Embassy.

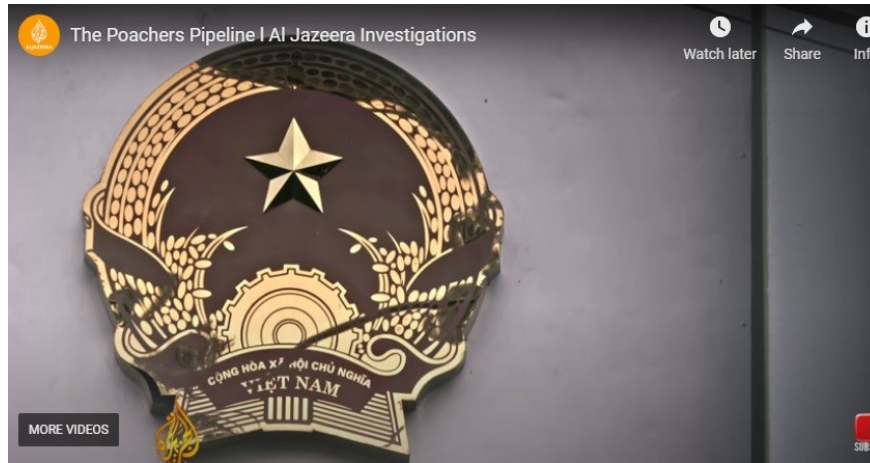


He's also shown in functions at the Vietnamese ambassador's house.

"The Vietnamese embassy in Pretoria has previously been implicated were shipments of rhino horn are suspected to have been smuggled out using the Embassy's diplomatic bag." "So it certainly raises a red flag about the knowledge of the Vietnamese embassy."



There's also a picture which was quickly taken down from the internet but obtained exclusively by Al Jazeera. It shows the Ambassador himself Lai We Won at Voi Game Lodge.

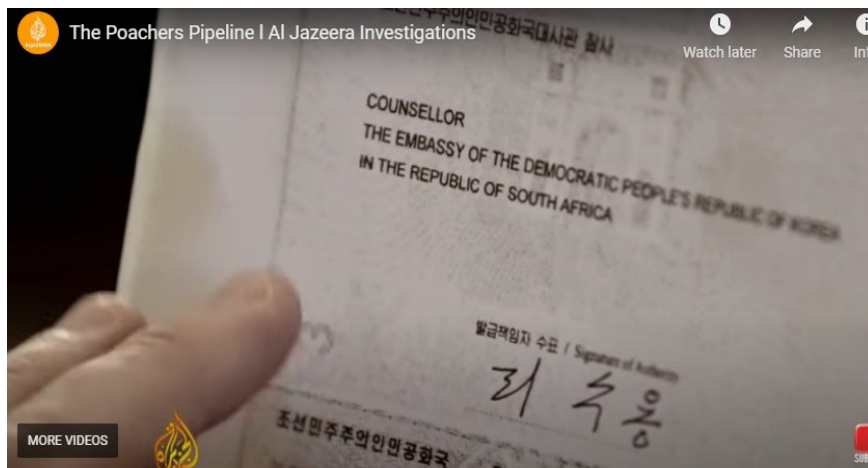
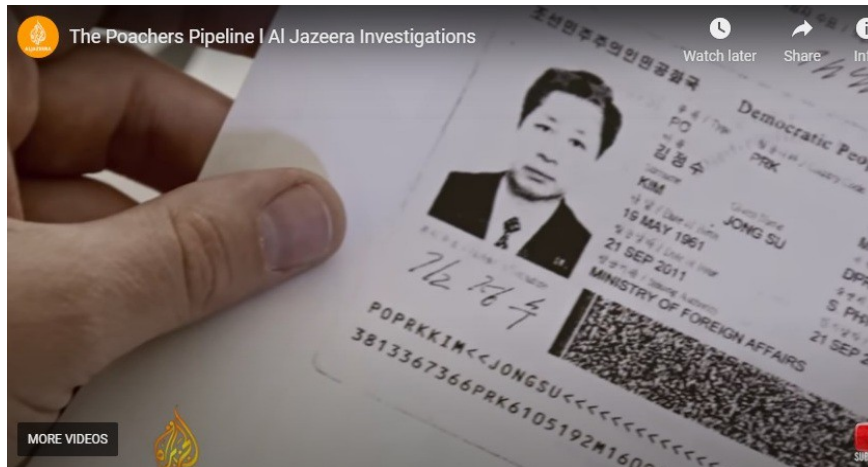


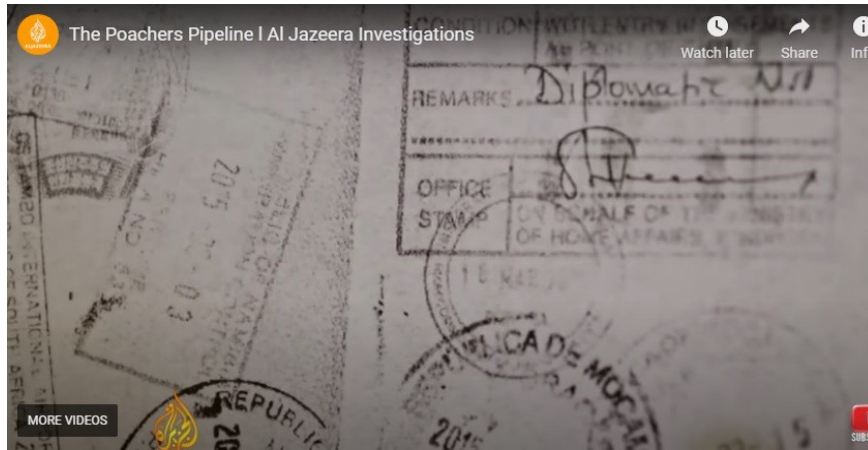
The Vietnamese Embassy told them they work to raise awareness of wildlife conservation and the law. They didn't respond to the specific allegations about their connection to Voi Game Lodge.

Other embassies have also been linked directly to smuggling horn. "They're violent, they were aggressive, they threw stones at my car."



This is what happened when Julian Rademeyer tried to confront the North Korean Embassy in South Africa about his latest report. Their diplomats had been caught in the act.



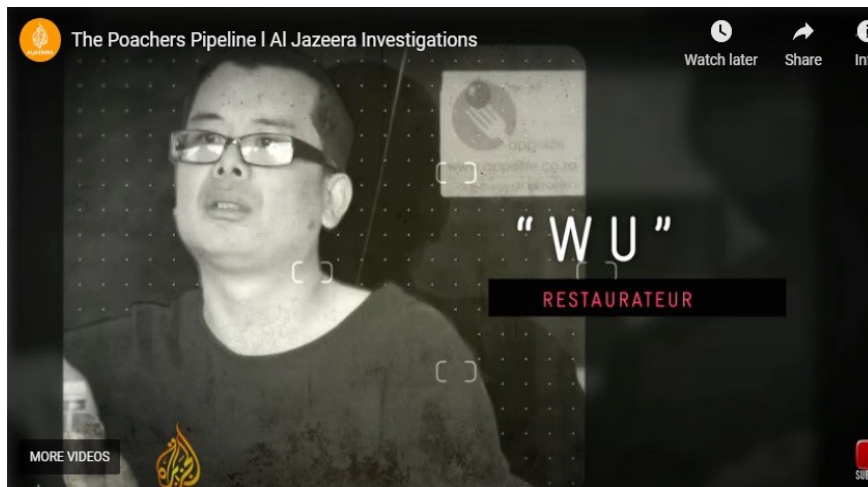


“A North Korean diplomat and a Taekwondo master were arrest in Mozambique and found in possession of rhino horn and over a hundred thousand US dollars in cash and had no explanation of how they ended up with the rhino horns.” **Neither man was ever prosecuted. It was one of almost thirty examples he found of embassies across Africa abusing diplomatic privilege to smuggle horn and ivory. Almost every case involved either North Korea, Vietnam or China.** “I think it’s an area of great concern.” “In most cases where police tried to investigate those cases have been told to back off.” **In none of those cases did anyone serve jail time they were all let go.** “It is essentially the perfect crime.” “Government officials in Africa are unlikely to allow police officials to search the bags of Chinese or Vietnamese diplomats simply because of the economic and political hold that China has over so many African countries.”

Corruption at the highest possible level.



China is South Africa's biggest trading partner. That relationship was on show in December 2015. The presidents of both countries met for a forum on cooperation which ended with a gala. It's a visit which has produced their biggest revelation of their undercover operation.



"They were a large group including performers." "I was catering." "The Embassy asked us to host." **Wu is the restaurant manager they met in Pretoria who introduced them to a dealer selling horn and ivory. He says he acted as a tour guide for the visiting Chinese delegation.** "I was cooking, hosting and everything." "And planning where they could relax, shop and all that." "Even the personal bodyguards came to our place." "Even Xi Jinping's personal bodyguards?" "Yes." "Even them." "We helped with crowd control and displayed the welcome banner."



And he claimed some of the president's people wanted illegal souvenirs. "So Xi Jinping's representatives bought a lot?" "Yes, a lot." "Where did they buy?" "They stayed a while so I took them to buy ivory." "They love those ivory accessories." "Also rhino horn but they didn't buy much." "Mainly ivory." "Lots of stamps, chopsticks, pen holder, ornament and bracelets." "All that stuff." **To confirm his involvement with the delegation we tracked down other people who'd been there at the time.** "How did you meet Mr. Wu?" "We worked together." **This man was one of several cooks they spoke to who catered for the china-africa summit. They met him in China. He wasn't involved in anything illegal so they're protecting his identity.** "We had to cook for over 200 people." "All sorts, performers, security, Chinese TV crews, and a handful of government officials." "Mr. Wu knows a lot of people?" "Yes." "Mr. Wu is very well connected." "The group bought lots of rhino horn?" "It sold out." "I'm not sure about rhino horn, but Mr. Wu saw all those visiting Chinese and knew he could make a fortune." "I don't know how he got hold of so many ivory chopsticks and accessories but he sold out in two days." "He said he'd never dare sell to them again." "He's afraid he'd get caught." "Who said that?" "Mr. Wu." "He said it's dangerous."





Strengthening the allegation is the fact that Chinese presidential delegations have been accused of exactly the same thing before on separate visits to Tanzania by Xi Jinping and his predecessor. Local traders say their entourages went on ivory spending sprees. “How many kilos?” “Many kilos.” “Like hundreds, thousands.” “No.” “Many kilos.” “Thousands yes.” Then and now travelling with the president apparently meant it was easy to smuggle the goods home. “I was told exactly how they brought the items back to Beijing.” “Unless you are extremely unlucky you should be fine.” “Just pack it with your ticket check in and they take your luggage to the plane.” “They won’t check if you carry on carefully.” “When you get off in Beijing someone will let you remove it from your checked bag.” “You put it in your carry on bag.” “Then you pass customs without a problem.”

They asked the Chinese government numerous times if they wanted to respond to the revelations but heard nothing back. Both China and Vietnam are signatories to the global ban on selling horn and ivory but as their investigations have shown their politician, diplomats and delegates may sign one thing in public but buy another thing in private.

“So the challenge is extraordinary.” “And the slaughter simply shows no signs of abating.” “Can the world afford to lose species, to lose human life, and if the answer is yes then they don’t care about other human beings outside China and Vietnam.” “Well I don’t think the governments are committed at all to stopping this.” “If they were they would be speaking out against it and they haven’t.” “If every single person doesn’t fight it not going to be there for our grandchildren.” “I think it’s incredibly difficult to only fight it within the parks.” “Sanctions, blacklisting, travel bans, they’re all kinds of mechanisms the international community has.” “It is essentially the perfect crime.” “You have a diplomatic bag that can’t be opened, it can’t be searched, no prosecution at all.”



“Unless we can convince the Chinese and Vietnamese to help us stop this trade we're not going to win.”

The Poachers' Pipeline.

<https://www.aljazeera.com/program/investigations/2016/11/12/the-poachers-pipeline>

Special thanks to Aljazeera for this magnificent documentary.

Also Focus Africa Foundation, Wildlife Justice and by no means least Wu Jang Kur and Guan Jiang Guang, who, love them or loath them, between them lifted the lid off the whole steaming shitpot sending it flying into orbit.

Synthetic/Bio-Fabricated Rhino Horn. Will it save the Rhino?

The idea behind fake horn was to crash the price of horn by flooding the market with a synthetic product. Like the Mark of the 1920s and 30s hyperinflation Germany the price of all commodities without exception is dictated by its abundance/scarcity and so ends the debate. And yet these are the arguments put forward by the various wildlife charities.

Synthetic/Bio-Fabricated Rhino Horn. Will it save the Rhino?

International Rhino Foundation and Save The Rhino.

Those people or organizations who may be concerned about synthetic bio-fabricated horn undercutting their potential market.

Will people want to buy synthetic / bio-fabricated rhino horn?

How will synthetic / bio-fabricated rhino horn be priced?

Synthetic / bio-fabricated horn could give credence to the notion that rhino horn has medicinal value which is not supported by sound science.

Traffickers caught with real rhino horn may be able to use a legal defense that they thought they were transporting synthetic / bio-fabricated horn.

Is it ethical for a US-based company to profit from a product based on genetic material from several developing countries without a clear means of compensation?

Fauna and Flora International.

Synthetic / bio-fabricated rhino horn does not have the same symbolic or medicinal value as the genuine article.

Pembient.

Media interviews with Pembient's founders since some of these position statements were published make it clear that the company has revised its thinking on the type of product it intends to market. For example, it no longer plans a partnership with a Chinese company to manufacture and sell beer containing powdered rhino horn.

The full ramblings are given here.

https://static.wixstatic.com/ugd/74da12_c4c530b04ed94ab0b24c209db04c04e6.pdf

With so much bickering and nit-picking it's as if they want it to fail.

Pembient no longer plans a partnership with a Chinese company to manufacture and sell beer containing powdered rhino horn. Why were they even considering chumming with China in the first place?

And the charities pointlessly arguing for the horn to be declared as fake which it positively does not. The whole point of the exercise surely relies on no-one knowing the difference. There are even concerns that it might 'undercut' the trade of real horn itself or that the medicinal value might not be the same as the genuine article. And as for the 'ethics' of using a 'genetic material' without compensation which has no business being traded in the first place? Whose side are these people even on?

The entire Poachers' Pipeline debate emphasises the point over and over and over again the need to get in there and disrupt the level 3 buyers and dealers. And what better way is there of doing that than to sell them a load of fake gear and make an absolute fortune out of them in the process? We saw in the film just how easy it was to infiltrate the traffickers and so the way forward is simple.

Each horn may need to be individually hacked at the base using a chainsaw in order to give them that grim authentic look. They wouldn't want to have a giveaway fresh out of the factory appearance. And keep the transactions modest, it wouldn't do to turn up with truckloads of the stuff, it might raise suspicions as to where it's all coming from or how you managed to get it. And only well vetted traders should be involved in this. A free-for-all of unknown traffickers could turn out to be an uncontrolled bonanza for all concerned with disastrous results.

WHY INNOVATION IS A NECESSITY—NOT A LUXURY

Pembient

Bioengineered Wildlife Products

We are leveraging advances in biotechnology to fabricate wildlife products, such as rhino horn and elephant ivory, at prices below the levels that induce poaching. Our goal is to replace the illegal wildlife trade, a \$208 billion market, the fourth largest after drug, arms, and human trafficking, with sustainable commerce.

Pembient Combining biotech with 3D printing solutions, Pembient creates synthetic rhino horns and elephant ivories—pricing them below the market levels of the real wildlife parts—in hopes of replacing the illegal poaching trade.

CIO INSIGHT

I just think there are far too many people overthinking what needs to be done in overly complicated ways. Keep things simple, stay focused, and who knows we might even achieve something.

There's an old saying if 'ya can't beat 'em join 'em, well we're not beating them are we, nowhere near. I'm not suggesting for a minuet we should go around gunning down rhinos, but we sure as hell can get in on the trade, get stinking rich doing it, and on top of that we could send the price of horn crashing into the abyss. But that said it might be wise I think to heed the words of Wu the restaurant owner.

"Not to sound harsh." "If you sell fake you can get your head blown off." "Seriously." "Anytime." "They'll f**king kill you." "It's very possible here."

Wu Jang Kur.

So let's do the job by all means but be armed and be prepared to do whatever's needed at any given time.

Selling out to the killers.

But of course there are those who much prefer to openly consort with the trophy hunting lobby rather than do something positive that would actually help the rhinos. Instead they prefer to go cap-in-hand to those very people who are involved with the killing. Only this time not in a good way.

There's something very undignified about appeasement and there are now so many wildlife charities who have mastered the practice to a fine art even though there are often far better ways of tackling things. Ways which would actually benefit all concerned apart from the killers that is.



The Wrongs Of Trophy Hunting. And this is about as wrong as it gets.

https://static.wixstatic.com/ugd/74da12_0c8b529f7f5240cda809f67f8a9603f2.pdf

A rhino poacher must have a poaching license, to poach legally - Says Minister of Tourism.



Saying that she does not have a problem with people making a little bit of extra cash on the side, Minister of Tourism in South Africa Thokozile Xasa stated today that she is not against rhino poachers, but she is against people who poach without a license.

After her statement, many people started asking if there is such a thing as a 'poaching license'.

"Yes, I think there is. We know there are no jobs in South Africa and we are not trying to block people from making a living. We are just against illegal poaching, get your papers right and we will not have a problem with you. You can then poach in peace," she said.

After realising that the minister actually has no clue concerning what she is talking about, we checked with other experts in the department and found out that there is no such thing, as poaching is a crime.

<http://newsatlastsa.online/2017/08/15/a-rhino-poacher-must-have-a-poaching-licenseto-poach-legally-says-minister-of-tourism/>

Well there we have it!

Javan Rhino Now Officially Extinct In Malaysia



According to Bernama, Deputy Natural Resources and Environment Minister Datuk Dr. Hamim Samuri said that according to the latest record of wildlife in Malaysia, the Rhinoceros Sondaicus, better known as Javan Rhino, is now extinct.



He announced the sad news while giving a speech at the Biodiversity Seminar 2017 yesterday. He stated that, "From the latest Malaysia wildlife list records, Javan Rhino are extinct, while four other animals, Sumatran Rhinoceros, Malayan Tiger, Sunda Pangolin and Gaur (Indian Bison) are considered critical species."

Datuk Dr. Hamim continued to say that the presence of Javan Rhinos in the wild was in a past record from 2010. At that time, the Department of Forestry had recorded three species of Javan Rhino but this year the species failed to be tracked and recorded. Even through monitoring conducted by various methods, including camera installation.

The main three reason for the extinction of the Javan Rhinos are shrinking habitat and roaming area, poaching and illegal trade, and road accidents. Besides the Javan Rhino, 12 species were assessed as endangered, 14 species as vulnerable, and 33 species as near threatened.

He also said, "Our wildlife is facing various threats due to the reduction of habitats and areas due to deforestation. In addition to habitat loss, wildlife populations have also declined mainly for tigers and elephants following wildlife hunting and illegal trade activities that are currently high on the black market."



"The numbers of Sumatran Rhinoceros, Pangolin and Gaur (Bison) are decreasing as compared to the actually past numbers. For example, there were only two Sumatran Rhinos that were alive, and those two were old and could not breed anymore. As for the Malayan Tiger, there were only 250 tigers when in actuality we should have a thousand more, he added.

On that note, besides having sympathy over these animals, we need to see the bigger picture. We are often blind to the connection of everything that supports life. A web so complex and interdependent, we are only beginning to understand it. The food chain, from the tiniest little microorganisms to the largest creatures on earth, keep us humans alive too.

<http://juiceonline.com/a-sad-day-for-mother-nature-as-our-javan-rhino-are-officially-extinct/>

The Javan Rhino Declared Officially Extinct in Two Countries.

First this animal disappears from Vietnam and only a few years later from Malaysia. It is now found only in Ujung Kulon National Park, Indonesia. How long will it be before it's gone completely?

With companies and the conservation authorities both doing their level best in turning a blind eye to all the only too obvious dangers it's quite probably not going to be that long. Time surely to wake up everyone before it really is too late. And again I think we've only got the same conservationists' cap-in-hand thoughts to blame.

So in order to save the forest habitat, let's not just stand helplessly around on the sidelines, on the next page is how it could be done.



Plant Forests and Make a Fortune.

https://static.wixstatic.com/ugd/74da12_849b9b810c2f4ef58093b651371de717.pdf

For further reading.

http://docs.wixstatic.com/ugd/74da12_a5952f168752449190449629e79736d2.pdf?dn=RAINFOREST+FOLDER+3.pdf

It's all about conservationists doing the job and keeping those highly exploitative outsiders with their commercial interests completely out of the way.

Wild species Oil Palm trees grown in their native C.W. Africa for the creation of habitat in that region. Wild Rubber and wild Cocoa native to Amazonia, which could be worth a \$multimillion annual turnover incidentally, again grown by conservationists creating habitat. They'd be systems for encouraging birds and fruit bats which would then in turn drop seeds and increase biodiversity. If carried out properly, keeping out all other commercial interests, this could earn vast sums for wildlife projects around the world.

Sudan, The World's Last Male Northern White Rhino, Dies From 'Age-Related Complications'



Sudan, the world's last male northern white rhino, died after "age-related complications," researchers announced Tuesday.

The 45-year-old rhino was euthanized Monday after his conditions "worsened significantly" and he was unable to stand any longer, the OI Pejeta Conservancy in Kenya said in a statement. There are now only two northern white rhinos left in the world – both are female.

"He was a great ambassador for his species and will be remembered for the work he did to raise awareness globally of the plight facing not only rhinos, but also the many thousands of other species facing extinction as a result of unsustainable human activity," said Richard Vigne, the group's CEO.

In this Friday, July 28, 2017 file photo, wildlife ranger Zachariah Mutai takes care of Sudan, the world's last male northern white rhino, at the OI Pejeta Conservancy in Laikipia county in Kenya. (AP)

The last male northern white rhino had been born in Sudan, taken to a Czech zoo and then transferred in 2009 to Kenya, where had become a bit of a celebrity. Last year, Sudan was listed as "The Most Eligible Bachelor in the World" on the dating app Tinder.

Sudan "significantly contributed to the survival of his species as he sired two females," the conservancy said. "Additionally, his genetic material was collected yesterday and provides a hope for future attempts at reproduction of northern white rhinos through advanced cellular technologies."

"He was a great ambassador for his species and will be remembered for the work he did to raise awareness globally of the plight facing not only rhinos, but also the many thousands of other species facing extinction as a result of unsustainable human activity."

Hopes of saving the species now lie with Najin, 27, and her daughter, Fatu 18 – which are both at OI Pejeta. A fourth female northern white rhino died in the San Diego Zoo in 2015.

Najin and Fatu are both capable of reproducing – but the surrogacy process is complicated and pricey. The rhinos also get 24-hour anti-poaching security in Kenya, a country where poaching is a big problem.

The animals are poached for its horns, which can cost hundreds of thousands of dollars because some believe it has medicinal value. The illegal rhino horn trade has even helped finance the terrorist group al-Shabab, which has made millions slaughtering rhinos and elephants for ivory.

"Giving birth to just one rhino won't save the species," Elodie Sampere, communications manager for the conservancy, told Fox News earlier this month. "We need at least 10 babies."

Fox News' Paul Tilsley and the Associated Press contributed to this report.

<http://www.foxnews.com/science/2018/03/20/sudan-worlds-last-male-northern-white-rhino-dies-from-age-relatedcomplications.html>

RIP Sudan. Good-bye old boy. People have a lot to learn!

The great rhino U-turn

After 17 years, researchers finally unlock the mysteries of Sumatran rhino reproduction

As the 20th century drew to a close the Sumatran rhino captive breeding program, launched in 1984, had yet to produce a single calf. Home to the last two Sumatran rhinos in the United States, the Cincinnati Zoo made several key discoveries about the species' reproductive behavior, including the fact that females only ovulate when they have contact with males. Andalas, the first Sumatran rhino bred in captivity in more than a century, was born in Cincinnati in 2001. This success, and the subsequent birth of four other calves, has led to a re-evaluation of the program as a whole. Now, attention is turned to breeding centers in the rhinos' original habitat as the future of captive breeding efforts. This is the third article in our four-part series "The Rhino Debacle."

As we walk out into the zoo enclosure, Cossatot comes over to greet me. Cossatot is a capybara, the size of a very big dog; his species is the world's largest rodent. He quickly determines from smelling my hands that I've neglected to bring him a treat. Looking a bit put out, he goes back to lounging in his one-man kingdom. But where Cossatot reigns was once the domain of an even larger, far more endangered animal. Little does Cossatot know, but his kingdom has made history. I'm visiting the old Sumatran rhino enclosures of Cincinnati Zoo with Terri Roth, head of the zoo's Center for Conservation and Research of Endangered Wildlife (CREW), and Paul Reinhart, leader of the team that cared daily for the rhinos.



Terri Roth inside one of the two enclosures at the Cincinnati Zoo that once housed Sumatran rhinos. Today the enclosures house a regal capybara named Cossatot and two emus. Image by Jeremy Hance for Mongabay.

Roth jokes that the enclosures have fallen far from their glory days when they housed arguably the rarest large terrestrial mammal on Earth. The two enclosures — one for the male rhino, Ipuh, and the other for the female, Emi, and her calves — are now the domain of Cossatot and a pair of nervous emus. Above them are half-million-dollar metal structures that look like giant rectangular umbrellas, built to shade the rhinos' eyes from the sun, just as the canopy does in the rainforest, and prevent severe eye damage.

Last Chance for the U.S.

In February of 1995, one year before Terri Roth would take the job as director of CREW, two Sumatran rhinos died within five days of each other at San Diego Zoo. This left just three Sumatran rhinos in the whole of the United States: Rapunzel, Emi and Ipuh, the sole male.

Over a decade before, in 1984, conservationists had kick-started a grand plan to capture Sumatran rhinos in the wild and breed them in facilities in Indonesia, Malaysia, the U.K. and the U.S. The bill for this large-scale undertaking was paid by the U.S. and U.K. zoos. Although conservationists were able to capture 40 rhinos over 11 years, the program had turned into a catastrophe. By 1995, nearly half of the 40 rhinos were already dead due to poor feeding practices, disease, accidents and simple ignorance. Moreover, not a single rhino had been bred in captivity. Now, there would be no more rhinos coming to the U.S. Due to a lack of success, the catching had ground to a halt, with the last rhino caught in Sabah, a Malaysian state on the island of Borneo, in 1995.

By this time, the U.K. had only one rhino, a male named Torgamba. Peninsular Malaysia had eight, but no luck breeding. Sabah had five, but only one female. Indonesia had two in captivity, both females. The U.S. zoo community, down to its last three rhinos, had one final shot at doing what it promised it could back in 1984: making a baby rhino. But the U.S. rhinos were scattered: Ipuh was at Cincinnati, Rapunzel at the Bronx Zoo, and Emi at L.A. Zoo.

"I'd become very much smitten by the beast," Maruska remembers of seeing his first Sumatran rhino. "It was a hairy animal. It was very unusual, very primitive looking. I thought in every shape or form, Cincinnati's going to be a part of this program."

Terri Roth's office is full of rhinos: sculptured metal rhinos, stuffed toy rhinos, plastic rhinos, wood rhinos, and cinema-sized rhino posters. She doesn't have an unnatural obsession with rhino replicas: nearly all of these are gifts, she says. Roth, who owns a small cattle farm over the border in Kentucky, has become something of a celebrity in the small circle of rhino people, because she accomplished something that many had begun to despair would never happen.

It's not that no one had been trying to breed the rhinos from the time they were brought into captivity — they had. But the animals would fight, sometimes viciously, whenever they were brought together. And even when mating happened, something was off: the females weren't getting pregnant.

The first thing Roth wanted to figure out was what was going on with the reproductive cycle of the females. They trained the two females, Emi and Rapunzel, to undergo ultrasounds without anesthesia, which would have been too risky. They quickly discovered that Rapunzel would never have children: she had a large mass in her uterus. So now the U.S. was down to an Adam-and-Eve scenario: Emi and Ipuh.

"The keepers were all on alert. They were ready to jump in if they're needed to. It actually worked pretty well because [Ipuh] was not really interested in picking a fight," Roth says. "He was just in the water ... Sometimes, Emi would go over to the pool and blow at him." There were "no big skirmishes," Roth recalls. "For the most part, they ignored each other."

A light bulb went off. It turns out the Sumatran rhino is an induced ovulator, which means the female needs something to kick-start her reproductive cycle. In the case of this species, Roth believes it's the interaction with a male that allows a female to ovulate. Roth says they don't even have to copulate to ovulate — they just need to spend time with a male at the right time in their cycle. "We've even seen situations where the males run her around but not even [mount] her, and she's ovulated. I think the ovulation is partly a response to the excitation of being with the male," Roth says.

Researchers at the Cincinnati Zoo trained female rhinos to accept ultrasounds without anesthesia, allowing every stage of ovulation and pregnancy to be carefully monitored. Still, the team didn't know how long Emi's cycle would be, so they started up again with the daily introductions, and 21 days later Ipuh and Emi tried again.

"She conceived on that one. That was the first pregnancy, which was shocking because it's pretty quick," Roth says. "We saw the little fetus developing. We saw a heartbeat. We sent out the press release. A week later, the embryo was gone. We thought, 'At least we knew he was fertile. We knew things were working.'"

Indeed, the team had the information they needed: they knew Emi needed interaction with a male in order to ovulate, they knew her cycle was around 21 days, and they knew how long the follicle would grow during the cycle. Breeding had started to go well; pregnancy, not so much.

"Then she lost the second one, then she lost the third one and it actually became more challenging for me because people started saying, 'It's because of the ultrasound exams that she's losing the pregnancy,'" Roth says. "I was forced to reduce the amount of work I was doing with her, instead of increasing it. Then we were learning less."

At this point, Roth started to run lots of blood tests to see if she could find anything amiss, comparing them with blood samples from other captive rhinos in Indonesia and Malaysia.

Then Emi lost her fourth pregnancy, and her fifth.

"Finally, I just said, 'Let's just put her on the progesterone supplement because we don't think it will harm anything, and it seems like it could only help and not hurt,'" she says. Progesterone is a hormone produced in the ovaries that becomes elevated during pregnancy. This was in 2000, four years after Roth was hired. It worked — the sixth pregnancy finally stuck. But no one had any idea how long it would last.

"The only thing I could find was somebody had at some point said it was a seven-month gestation, which we didn't believe because no rhino is that short," Roth says. In fact, 16 months later, Emi gave birth to a baby boy: Andalas. He was not only the first Sumatran rhino born in captivity in 112 years, but the first tangible success of that tragedy-filled program launched in 1984.

The Cincinnati effect

Cincinnati Zoo, the second-oldest in the country, sits smack-dab in the city among the rolling hills surrounding the Ohio River. Generally considered one of the world's top zoos, it has a long history of breakthrough captive-breeding successes, from giraffes to trumpeter swans to bison.

But perhaps none of the zoo's past glories could compete with the birth of Andalas.

In many ways, Tom Foose, conservation coordinator for the Association of Zoos and Aquariums (AZA) and the driving force behind the 1984 meeting to launch the captive-breeding program, had a point about why U.S. and U.K. zoos should have a crack at breeding Sumatran rhinos: the world's best zoos had both the expertise and the technology to have the best chance of success.

"That's what I love about the Sumatran rhino story because it's a perfect example of how zoos can contribute," Roth says. And Cincinnati was even more distinct than many zoos. Not only did it have a long history of captive breeding and expertise, but it also had an entire research facility, CREW, devoted to this kind of work.

"It's hard to describe when they were born, it's even harder to describe when an animal passes away," says Reinhart, who spent 22 years caring for Ipuh. "[He] contributed so much to the species and the knowledge and the propagation of these animals and he stayed with us to the very end." Today, his preserved body rests at the University of Cincinnati.

An even bigger heartbreak came a little over a year later when Suci, Emi and Ipuh's daughter, died from iron storage disease, the same sickness that took her mother.

"With Suci, we suspected it when she started showing the same symptoms that Emi did," Roth says. For a while, Suci, just 9 years old, improved with aggressive treatment, but a few months later her health worsened. "Her liver was just too damaged," Roth says.

She believes iron storage disease was an issue at Cincinnati because the rainforest rhinos have evolved to live with multitudes of parasites and biting insects that constantly drain them of blood.

"They're trying to absorb as much iron as they can from what little iron they get on their diets because they have this constant load of parasites. They're bleeding, and they're having to build up tissues that parasites have chewed down, so they need it all the time," she says. "We bring them into our zoos or our facilities and we get rid of all the parasites, and they don't have that outlet anymore, so they're not losing iron anymore."

By the time of Suci's death, the Sumatran rhino program had shifted significantly. During the period when Cincinnati Zoo was struggling to produce just one calf, many experts began to feel the best thing for the species would be to bring them into managed sanctuaries in their local environment. This way, the rhinos would have direct access to their wild, natural foods and, many experts believed, this might help induce mating and decrease the chance of disease.

In 1998, Indonesia opened the Sumatran Rhino Sanctuary (SRS) deep in Way Kambas National Park, a park also home to some of the last wild Sumatran rhinos on Earth. Two females were brought from zoos in Indonesia that year, as was Torgamba, all the way from the U.K. Unfortunately, breeding between these pairs was never successful.

Still, by the late 1990s, the SRS and the Sungai Dusun rhino center in Malaysia — where six rhinos would die in 2003 — were beginning to be seen as the future of the program. In 2007, the U.S. sent Andalas, the first calf born in captivity, thousands of miles to the SRS in the hope that he could find an unrelated mate. It was time for the Cincinnati staff to transfer what they learned overseas.

Harapan's arrival in Sumatra marked not only the last Sumatran rhino leaving the Western Hemisphere, but also 20 years since the close of the original captive-breeding program. The 1984 program was still a long way away from achieving a sustainable population in captivity that could, if nothing else, ensure the species wouldn't go the way of the dodo, the Tasmanian tiger and the woolly rhino. However, conservationists had ensured that by 2015 there was still a chance to do so.

<https://news.mongabay.com/2018/09/the-great-rhino-u-turn/>

WHO Endorses Traditional Chinese Medicine. Expect Deaths To Rise



This white rhinoceros, an endangered species, has been killed by poachers solely for its horn, which is ground and used in traditional cures for sexual dysfunction in Asia. Credit: Getty Royalty Free.

A few days ago, a news story in the journal *Nature* reported that the World Health Organization, which is supposed to be devoted to improving the health and medical care of people around the globe, will for the first time endorse a belief system called "traditional Chinese medicine." I'm labeling TCM a belief system because that's what it is—but the WHO will be endorsing it as a set of medical practices.

The *Nature* writer, David Cyranoski, presents this news in a classic two-sides-of-the-story format, describing the "endless hours" that TCM proponents spent on such important topics as the "correct location of acupuncture points and less commonly known concepts such as 'triple energizer meridian' syndrome." Later in the article (but much later), he points out that scientists have argued that qi and meridians simply don't exist.

Actually, it's much worse than this. Here's what TCM really looks like: the horrific slaughter of the last remaining rhinoceroses in Africa in order to hack off their horns, which are sold to become part of elixirs that some people mistakenly think confer strength, virility, or other health benefits. Last year, National Geographic ran a heart-wrenching photo essay showing some of the awful results of rhinoceros poaching in Africa; take a look at these photos [here](#).

TCM also looks like this: black bears kept in grotesquely cruel "farms" with a permanent tube inserted into their abdomens so that their bile can be harvested. Despite a growing movement to end this inhumane practice (see this *NY Times* story), it persists today, with thousands of bears kept in cages so small they can barely move. No-one can view photos such as these and say that TCM is a good thing.

And TCM is behind the slaughter of the last remaining wild tigers, which are virtually extinct now in Asia, so that men can foolishly eat their bones, claws, and genitals in the mistaken belief that tiger parts will make them virile. Here too, National Geographic has details and photographs that are almost too painful to look at.

And don't get me started on pangolins, the beautiful, peaceful mammal that's now perilously endangered because TCM practitioners think its scales have some sort of medicinal value. (They don't.) For more on these gentle creatures, see the article I wrote last year.

I can almost hear the counter argument: but what about artemisinin? That's a plant extract derived from *Artemisia annua*, an herb that was traditionally used in China to treat malaria. Turns out that it really works, and artemisinin is now the basis of a number of modern malaria treatments.

Well, great. If an herb has the potential to treat disease, we should (and can, and do) study it, figure out what the active ingredient is, develop a controlled process for delivering effective doses, and use it. That's what happened with artemisia, and it also happened with taxol, an effective cancer chemotherapy derived from the Pacific yew tree, and common aspirin, derived from the willow tree.

But one success doesn't excuse hundreds of bogus claims that are based on little more than magical thinking.

There's no legitimate reason to use terms such as "Chinese" medicine, or American, Italian, Spanish, Indian, or [insert your favorite nationality] medicine. There's just medicine—if a treatment works, then it's medicine. If something doesn't work, then it's not medicine and we shouldn't sell it to people with false claims. The same is true for alternative, holistic, integrative, and functional medicine: these are all just marketing terms, with no scientific meaning. They merely serve to disguise sloppy, unscientific thinking at best, and in a less charitable interpretation, outright fraud.

As the Nature article points out, TCM has been a scam for decades: it was revived and heavily promoted in China by former dictator Mao Zedong, who didn't believe in it himself, but pushed it as a cheap alternative to real medicine. I won't go over that again here, but see these stories from Alan Levinovitz in Slate and David Gorski at Science-based Medicine.

Finally, why would the World Health Organization start pushing a set of unscientific practices that are likely to harm people's health? Support for TCM grew during the tenure of former WHO director Margaret Chan, who ran the WHO until 2017 and who had close ties to China. When Nature tried to contact Dr. Chan, the WHO responded that Chan "is not answering questions on matters related to the WHO."

By endorsing TCM, the WHO is taking a big step backwards. Let's hope that the current leaders of the WHO will realize that this step undermines their core mission. The WHO should not advocate treatments that not only have no evidence to support them and that can cause real harm to patients, but also are the primary reason that humans are hunting rhinoceroses, tigers, pangolins, and other animals to extinction.

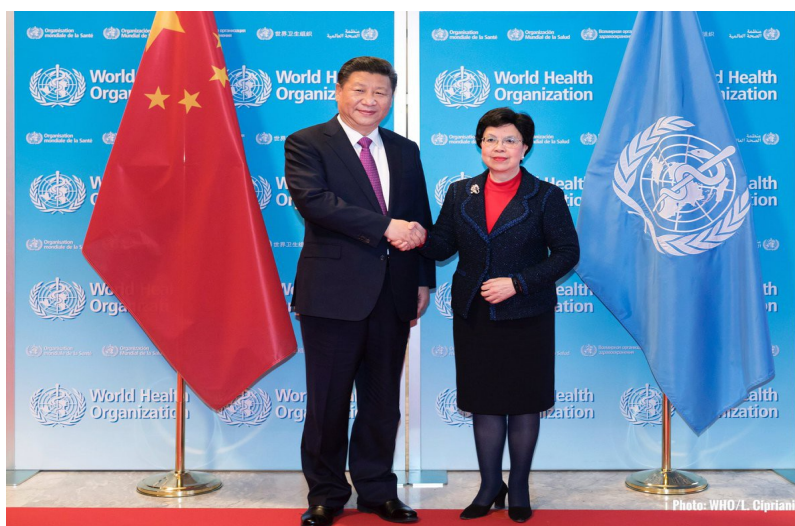
<https://www.forbes.com/sites/stevensalzberg/2018/10/01/who-endorses-tcm-expect-deaths-to-rise/>

Dr Margaret Chan was the Director-General of WHO, first appointed by the World Health Assembly on 9 November 2006.

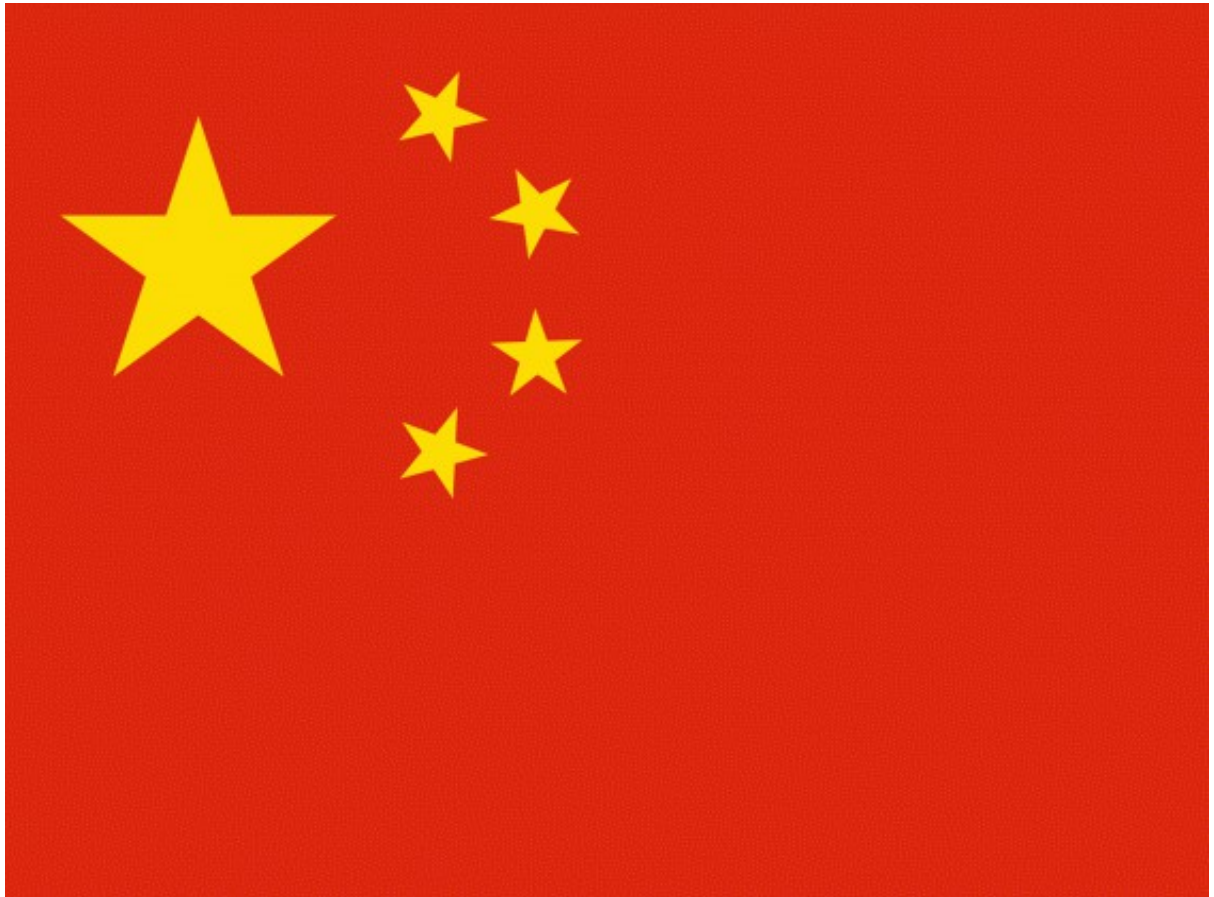
Before being elected Director-General, Dr Chan was WHO Assistant Director-General for Communicable Diseases as well as Representative of the Director-General for Pandemic Influenza.

Prior to joining WHO, she was Director of Health in Hong Kong. During her nine-year tenure as director, Dr Chan confronted the first human outbreak of H5N1 avian influenza in 1997. She successfully defeated the spate of severe acute respiratory syndrome (SARS) in Hong Kong in 2003. She also launched new services to prevent disease and promote better health.

<https://www.who.int/dg/chan/en/>



It's no coincidence Margaret Chan, as WHO's Director-General with her close ties to President Xi Jinping, should have endorsed Chinese medicines like she did.



China.

For a country guilty of decimating people and wildlife around the world they sure have a lot to say in their defence.

The China File. Please take a read.

https://static.wixstatic.com/ugd/74da12_ee24d266669145dc8b496300082a752e.pdf

China hands over anti-poaching facilities to Zimbabwe

China on thursday handed over vehicles and equipment to Zimbabwe to help the cash-strapped government fight against wildlife poaching, implementing a wildlife protection cooperation agreement signed during Chinese President Xi Jinping's visit to Harare last week.

The donation, comprised of ten sport-utility-vehicles (SUVs), seven pickup trucks, eight lorries, ten graders, eight tractors, more than 100 mobile radios, tents, flash lights, patrol clothing and etc., is expected to be used to fight poaching at Hwange National Park, the country's largest wildlife sanctuary, and Mana Pools National Park, a World Heritage site in northern Zimbabwe.

The two national parks, home to some of Africa's largest elephant herds, have become increasingly vulnerable to poaching as a result in the shortage of wildlife protection funding.

Handing over the equipment at Hwange National Park, Chinese Ambassador to Zimbabwe Huang Ping said the equipment will further boost Zimbabwe's efforts in wildlife protection.

Huang said China, as an "all-weather" friend, is committed to assisting Zimbabwe in fighting wildlife poaching.

Zimbabwean Minister of Environment, Water, and Climate Oppah Muchinguri thanked China for the timely assistance, saying the donation will "go a long way" in bridging the existing gap between the resources and the huge demands for conservation.

Muchinguri decried poor funding of the national parks agency which she noted was undermining its capacity to effectively fight poaching and engage in sustainable wildlife conservation and protection.

The reputation of Hwange National Park, which holds close to 50,000 elephants, was tarnished this year as over 60 elephants were killed for tusks by poachers who laced toxic cyanide in the watering pans.

The authorities were unable to prevent the tragedy as they did not have the manpower and facilities, including vehicles and surveillance devices, to patrol the sprawling park, measuring 16,000 square kilometers.

"Our conservation efforts are under threat from increased poaching, illegal trade, international restrictions and reduced community benefits from wildlife," Muchinguri said. "These challenges have been exacerbated by government's limitation to adequately monitor and enforce wildlife regulations."

Zimbabwe National Parks and Wildlife Management Authority Director Edson Chidziya said the patrol team, now equipped with Chinese donations, is in better position to implement anti-poaching measures.

He said China has played its part in conservation, and its assistance extended to Zimbabwe is an excellent example of such contributions.

During a visit to a wildlife sanctuary in Zimbabwe's capital Harare last week, President Xi said his country was committed to wildlife protection and will provide Zimbabwe with more assistance for preserving the vital component of the natural ecosystem.

He pointed out that wildlife protection was one of the key areas in China-Zimbabwe cooperation and that China will continue to help Zimbabwe improve its wildlife capability in this regard by donating equipment and conducting exchanges of experience.

Over recent years, China has intensified efforts in wildlife protection, including a harsh clampdown against illegal wildlife trafficking. In October, Chinese authorities announced a one-year ban on imports of African ivory acquired as hunting trophies.

The ban followed a similar measure enacted in February against imports of African ivory carvings acquired after the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) took effect in 1975. In May, China publicly destroyed 662 kg of confiscated ivory.

During Xi's landmark state visit to the United States in September, the two countries committed themselves to nearly complete bans on ivory import and export, including significant restrictions on ivory hunting trophies, and regulations aimed at halting domestic commercial trade of ivory

http://china.org.cn/environment/2015-12/10/content_37289973.htm

The Chinese Government wanting to combat poaching. They're 'aving a bloody laugh right!

Dogs trained to protect wildlife have saved 45 rhinos from poachers in South Africa



A pack of dogs that trained to protect wildlife have already saved 45 rhinos from poachers in South Africa.

The dogs, who range from a beagle to bloodhound, began training from birth and learnt how to handle all the pressures of real operations before working at 18 months-old.

Sean Viljoen, who is based in Cape Town, shared photographs of the dogs in action at the Southern African Wildlife College in Greater Kruger National Park.

The 29-year-old is the owner of a production company called Conservation Film Company which aims to bring cinematic storytelling to the characters on the frontline of conservation and share stories of hope.

Johan van Straaten, who is a K9 Master at the college, said, “the data we collect for this applied learning project aimed at informing best practice, shows we have prevented approximately 45 rhino being killed since the free tracking dogs became operational in February 2018.

“In the areas where the Southern African Wildlife College patrol, the success rate of the dogs is around 68 per cent using both on and off leash free tracking dogs, compared to between three to five per cent with no canine capacity.

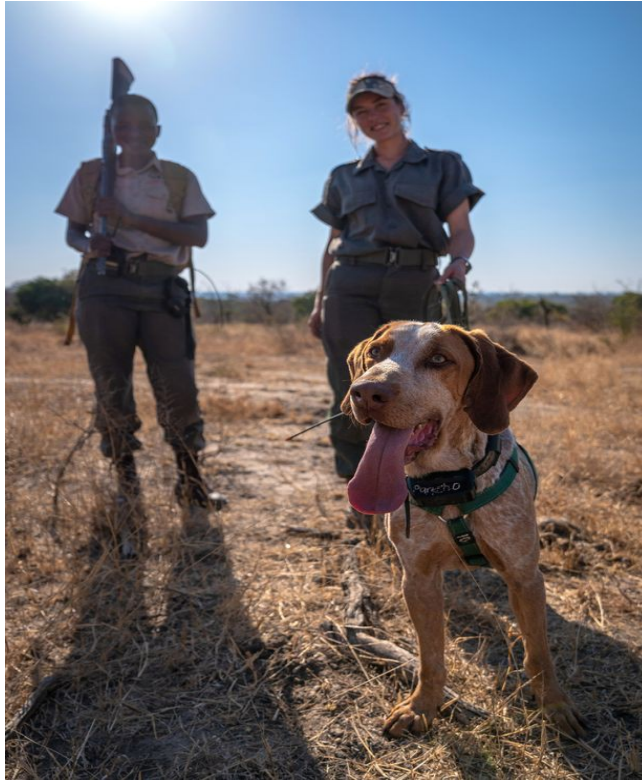
“The game changer has been the free tracking dogs who are able to track at speeds much faster than a human can in terrain where the best human trackers would lose spoor.



Johan van Straaten with the trained dogs (Image: Sean Viljoen / SAWC / Ivan Carter WCA / Caters News)

“As such, the project is helping ensure the survival of southern Africa’s rich biodiversity and its wildlife including its rhino which have been severely impacted by wildlife crime. South Africa holds nearly 80 per cent of the world’s rhino.

“Over the past decade over 8,000 rhino have been lost to poaching making it the country hardest hit by this poaching onslaught.”



Dog handlers Precious Malapane [left] and Robynne Wasas [right] (Image: Sean Viljoen / SAWC / Ivan Carter WCA / Caters News)



<https://focusingonwildlife.com/news/dogs-trained-to-protect-wildlife-have-saved-45-rhinos-from-poachers-in-south-africa/>

A new sanctuary for the Sumatran rhino is delayed amid COVID-19 measures



BANDA ACEH, Indonesia — A much-anticipated plan to establish a new rhino-breeding sanctuary in northern Sumatra is one of many that has been put on hold in the wake of the COVID-19 pandemic.

The proposed facility is atop priority for Indonesia's conservation plan to rescue the world's last remaining Sumatran rhinos (*Dicerorhinus sumatrensis*) through a network of captive-breeding facilities. One already exists in southern Sumatra, inside Way Kambas National Park, and authorities planned another for a forest area in the Leuser Ecosystem in Aceh province, in the island's north, expected to be completed by 2021.

For the past year, officials and experts — from the environment ministry, local government, academia and NGOs — have been working on the permits, feasibility and environmental studies, and developing the designs, including the detailed engineering design (DED).

"If it wasn't for the pandemic, the DED would've been done in March 2020," said Dedi Yansyah, the wildlife protection coordinator at the Leuser Conservation Forum, one of the NGOs involved in the plan.

Indonesia confirmed its first cases of COVID-19 in early March. Since then, the country has recorded the second-highest number of deaths from the disease in East Asia (behind only China), even amid widespread measures to curb the spread of the virus, including stay-at-home orders and grounding of flights.



Harapan, a captive male Sumatran rhino, with a keeper at the Sumatran Rhino Sanctuary in Way Kambas National Park. Image by Rahmadi Rahmad/Mongabay Indonesia.

The planned rhino sanctuary in Leuser will cover 100 hectares (250 acres) of an ecosystem that's also the only place on Earth that's home to rhinos, tigers, orangutans and elephants. Agus Irianto, the head of the Aceh provincial conservation agency (BKSDA), said the area in question is a mosaic of logging forest, oil palm concession, and non-forest land. He said permits to acquire the logging forest and non-forest area were nearly completed; the agency is also in discussions with the oil palm concession holder to acquire that land.

"Certainly, [COVID-19] has affected the activities and timeline that were previously arranged," Agus said.

An environment ministry official said an initial batch of at least five rhinos would be captured from the wild in Aceh and moved to the sanctuary to kick off the captive-breeding program there. The Leuser Ecosystem is touted by experts as the most promising habitat for wild rhinos because it's believed to have the largest population of the species, at about 12 individuals. (Estimates for the Sumatran rhino's total population range from 30 to 80.)

But conservationists still understand little about the mountainous area, and the incidence of poaching there is believed to be higher than elsewhere.

Indonesia's captive-breeding program currently has eight Sumatran rhinos in two sanctuaries: seven Way Kambas National Park, and one in the Kelian forest, in Indonesian Borneo.

Rhino experts around the world decided only in 2017 that the captive breeding of Sumatran rhinos, from both Sumatra and Borneo, was the only viable option to save the species, which is now found only in Indonesia after the death of Malaysia's last captive rhino.

The species once ranged across Southeast Asia, from the Himalayas in Bhutan and India, to southern China and down the Malay Peninsula. But it has been decimated by a series of factors, from poaching to habitat loss and, more recently, insufficient births.

The initiative agreed to in 2017 mirrors a similar effort in the 1980s to capture Sumatran rhinos for breeding. That program, however, collapsed a decade later after more than half of the animals died without any calves being born. But a string of successful captive births in both the United States and Indonesia, and a growing consensus that the species will go extinct without intervention, have laid the groundwork for the latest captive-breeding effort.

This article by Junaidi Hanafiah was first published on Mongabay.com on 27 May 2020. This story was first reported by Mongabay's Indonesia team and published here on our Indonesian site on May 16, 2020. Lead Image Source: Harapan, a captive male Sumatran rhino, at the Sumatran Rhino Sanctuary in Way Kambas National Park. Image by Junaidi Hanafi/Mongabay Indonesia.

<https://focusingonwildlife.com/news/a-new-sanctuary-for-the-sumatran-rhino-is-delayed-amid-covid-19-measures/>

Rhinos Are Also Coronavirus Victims



As Africa's national parks and game reserves have emptied of tourists and reduced ranger patrols amid the coronavirus pandemic, conservationists say a troubling trend has taken root.

Opportunistic poachers, taking advantage of the lull, are maiming and killing rhinos and other endangered creatures in areas usually considered safe from such attacks — and there are fears these killings could spike substantially as COVID-19 lockdowns and other restrictions continue.

"It's a bloody calamity. It's an absolute crisis," Map Ives, founder of Rhino Conservation Botswana, told CNBC last month of poaching across Africa.

"Poaching doesn't stop just because there's a virus — if anything, it picks up."

In a sobering report last month about the impacts of the pandemic on wildlife crime, the Wildlife Justice Commission said "several prolific poaching bosses in Africa are actively organizing poaching teams to enter parks and protected areas during this time."

The impacts of those incursions are already being felt.

In Kenya, which usually welcomes 1.5 million tourists a year — a vast majority of them safari-goers — "we have seen alarming increases in bushmeat and ivory poaching" since the introduction of COVID-19 restrictions, Sanjayan Muttulingam, CEO of Conservation International, told the Financial Times.

In Botswana, at least six rhinos have been killed by poachers since the country's flourishing ecotourism industry was shuttered because of the virus. And in neighboring South Africa, at least nine have been poached. "Those are just the ones we know about," activist Nico Jacobs told The New York Times.

As the pandemic halts tourism to Africa, poachers are killing rhinos in travel hot spots now devoid of visitors. In Botswana, at least 6 rhinos have been poached since the virus shut down tourism there and in the northwest South Africa, at least nine. <https://t.co/L7Zh5lvkZl> pic.twitter.com/hLRO4aKear

Jacobs, founder of Rhino 911, a nonprofit that provides emergency helicopter transport for rhinos in need in South Africa, said he'd responded to a rhino poaching report "almost every single day" since the country's lockdown began.

He recalled rushing to the rescue of two critically endangered black rhinos whose horns had been hacked off by poachers. By the time he found them, they'd already died from their injuries, Jacobs told the Times.

Black rhino populations declined by 98% between 1960 and 1995, largely due to hunting, according to the World Wildlife Fund. Today, around 5,000 of them remain.

Noah's Ark Foundation Ranger, Peta Janice Smith says #COVID19 "is directly responsible" for the increase in animal poaching over the last month, due to less patrols and the lack of tourists. #KayBurley

<https://focusingonwildlife.com/news/rhinos-are-also-coronavirus-victims/>

This ‘rhino court’ had 100 percent poacher convictions. Why was it closed?

Some conservationists and activists in South Africa are concerned that criminal syndicates are making it even more difficult to protect rhinos from poachers.

A special field ranger patrols for poachers inside Kruger National Park, home to about 30 percent of the world’s remaining 18,000 rhinos. Some conservationists believe suspicious actions have sidelined rangers, giving poachers openings to kill more rhinos.

“GO NOW! THE spoor is fresh!” Sandra Snelling, an operations manager for South African National Parks (SANParks), exclaimed, sending a squad of rangers on their next mission: tracking the poachers who had just killed a rhino in Kruger National Park.

It was October 2016, and I’d come to Skukuza, a SANParks post inside Kruger, to see how anti-poaching operations are carried out in the famed 7,500-square-mile preserve, where about 30 percent of the world’s estimated remaining 18,000 wild rhinos live.

Urgent dispatches are no surprise to these rangers, members of a special operations unit. Kruger, which encompasses land in Mpumalanga and Limpopo provinces, has long been a key target of poachers who kill rhinos for their horns, says Johan Jooste, former head of special projects at SANParks, the agency that administers the country’s preserves. The poachers are infiltrators from Mozambique, which abuts Kruger’s eastern border, as well as impoverished local villagers who sell horns to criminal networks that smuggle them to Asian countries—mainly China and Vietnam—to be sold for use in traditional medicines or made into bracelets, carvings, and trinkets.

Kruger is home to two rhino species: about 500 black rhinos, which have a pointed lip for browsing on shrubs, and the more numerous white rhinos, with a squared lip for grazing on grass. Poachers have killed more than 8,200 rhinos in South Africa during the past decade; from 2012 to 2017, Kruger’s white rhino numbers fell from 10,500 to about 5,100.

In recent years, it seems, the anti-poaching battleground has expanded, as criminal networks appear to be infiltrating South Africa’s judicial and bureaucratic structures.

“It is difficult to convey the scale of the problem,” says Andrea Crosta, executive director of Earth League International, a Los Angeles-based nonprofit dedicated to fighting wildlife crime. Over the last four years, he has led an undercover investigation on rhino trafficking and poaching in South Africa. Crosta believes that “Poaching syndicates have [many South African] government officials in their pockets. They have every base covered. It creates a highly incompetent, corrupt, and dysfunctional landscape that these criminal networks then capitalize on—with the loser being the rhinos.”

Rhino horn syndicates are multilevel criminal networks, with poachers and couriers managed and paid by regional bosses who mastermind and direct operations, receiving the rhino horns and supplying them to national-level traders. Those traders have connections with buyers in Asia and oversee the shipment of horns out of Africa. Often, as detailed by Al Jazeera’s The Poacher’s Pipeline investigation, they have strategic contacts embedded in law enforcement and government bureaucracies, guaranteeing a degree of protection for their illicit dealings.

Slow justice sends a message to rangers that these crimes are not a priority.

SUSIE ELLIS, INTERNATIONAL RHINO FOUNDATION

Experts point to the abrupt closure last year of South Africa’s special “rhino court,” in Skukuza, as a likely example of syndicate influence. Also suspicious is the sidelining of some of the most effective anti-poaching personnel, including specific rangers, investigators, and prosecutors. In addition, wildlife advocates also point to the failure of the South African Police Service to renew a contract for DNA testing of rhino horn evidence, among other government inactions.

Questions therefore arise among field personnel, investigators, prosecutors, lawyers and conservation organizations as to whether various individuals are making concerted efforts to undermine law enforcement and increase the chances for poaching suspects to walk free.

Confronting the crime syndicates that finance and organize rhino killings is key to combating the relentless onslaught, Jooste said in a 2016 Global Initiative investigation into transnational organized crime and rhino horn trafficking. Stopping poachers saves rhinos and buys time, he said, but winning won’t happen in the bush. Rather, “victory will only occur in the courts.”

That belief spurred the creation of Skukuza Regional Court in March 2017 to handle hearings and trials for rhino poachers and traffickers caught in and around Kruger.

<https://www.nationalgeographic.com/animals/2020/08/rhino-poaching-court-closed-south-africa/>

ISIS using illegal ivory trade to fund terrorism in East Africa, former UK ambassador warns

Sir Ivor Roberts says East Africa 'critically undermined' by extremist groups

ISIS is “growing stronger” through its use of the illegal ivory and illicit sugar trades to fund terrorists in East Africa, according to a new report by a former British ambassador. Extremist fighters and terror campaigns are being paid for through the unlawful activities which are becoming “more sophisticated”, said Sir Ivor Roberts, a former British diplomat in Lebanon and head of counter-terrorism in the Foreign Office.

He makes these claims in his report *An Unholy Alliance: Links Between Extremism and Illicit Trade in East Africa*, produced for non-government organisation the Counter Extremism Project. He warns that East Africa is being “critically undermined” by the illegal trade, as terror groups continue to thrive. Mr Roberts' report was published as ministers from the Global Coalition against ISIS on Tuesday warned of the “urgent threat” posed by growing insurgency in parts of Africa. Last year, attacks by ISIS in Africa grew by a third.

“The most effective way for the East African region, and the wider international community, to fight extremism, crime, and corruption is to turn off the taps of illicit trade,” Mr Roberts said. Fighting raged for the fifth day Sunday in northern Mozambique as rebels fought the army for control of the strategic town of Palma. “This can ensure critical revenues are not lost to the shadow economy but are instead invested in key services. “Combating illicit trade should be the number one priority for East African governments and their international allies. This issue goes beyond the borders of East Africa, and it is imperative that the international community pay heed.”

In recent years, East Africa's developed transport infrastructure and increasingly affluent consumer markets have seen the region become a prime target for illicit trade networks, Mr Roberts said. “As illicit trade networks continue to expand and mature in their sophistication, the cost to East African society has been enormous. “At every link in the illicit chain, economic, social, and political harm is done to East African society, while terror and crime groups grow stronger,” he said.

His report warns that extremist groups such as Al Shabab and Ahlus Sunnah wal Jamaah are exploiting and causing “huge damage” to precarious populations of elephant, rhino and pangolin. “Illegal wildlife trafficking has continued during the pandemic, despite increasing international awareness of the threat posed by zoonotic diseases which may originate in the illicit transfer of animal products,” he said. “Ongoing conflicts in central African nations, such as the Democratic Republic of Congo and Central African Republic, are fuelled by the illegal expropriation and smuggling of environmental resources, including diamonds and wildlife.

A US military convoy drives through the town of Qamishli in northern Syria. AP Anti-ISIS coalition calls for sustained operations in Iraq and Syria. British man killed terrorists before fleeing Mozambique attack. “These illicit goods are commonly routed through East Africa on their way to international markets.

“Illicit trade is the lifeblood which sustains extremist groups operating in East Africa and its surrounding regions, including Al Shabab, ISIS and the Janjaweed to the north, the Lord's Resistance Army and dozens more rebel militias in Central Africa, and the ISIS-linked Ahlus Sunnah wal Jamaah in northern Mozambique. “There is a great need for co-ordinated action against illicit trade across the whole East African region. It is not enough for individual countries to take isolated measures targeting only specific categories of illicit trade.”

The report makes several recommendations. These include: treating crime, corruption, extremism and illicit trade as “equal evils threatening national security”; adopting anti-illicit trade strategies and enlisting international support; and introducing surveillance tools to enforce manufacturing and market regulations to prevent the production and circulation of illicit products. “It is evident that crime, corruption, extremism and illicit trade are inextricably linked in East Africa,” he said.

On Tuesday, British Foreign Secretary Dominic Raab and US Secretary of State Antony Blinken said a “comprehensive and collective effort remains necessary to achieve a full and enduring defeat of ISIS worldwide.” “Two years on from the territorial defeat of Daesh and liberation of nearly eight million people from its cruel grip, we remain committed to preventing its resurgence,” Mr Raab said. “The UK is supporting partner forces confronting Daesh in Iraq and Syria, stabilising liberated communities, building institutions so that terrorists face justice and leading efforts against its twisted propaganda.”

Last week ISIS-linked extremists carried out a five-day assault on people living next to a \$20 billion site for a major gas energy project, led by the French company Total, in Mozambique. It led to thousands of people being rescued by a flotilla of fishing vessels, after taking refuge on nearby beaches.

<https://www.thenationalnews.com/world/isis-using-illegal-ivory-trade-to-fund-terrorism-in-east-africa-former-uk-ambassador-warns-1.1194856>

For the creation of ISIS I think we need look no further than Blair, Bush Jr, Cameron, Sarkozy and Obama.

Northern White Rhino Embryos.



We are so pleased to start the new year by sharing some very positive conservation news with you. Today, we announced the creation of two additional northern white rhino embryos. This makes for a total of five viable pure northern white rhino embryos, another impressive step in the right direction for the survival of the species.

As you are probably aware, since you are a supporter of Ol Pejeta, Najin and Fatu are the only remaining northern white rhinos in the world. To prevent the extinction of the northern white rhino, an international consortium of scientists and conservationists have been harvesting immature egg cells (oocytes) from the two females and artificially inseminating them using frozen sperm from deceased males in order to create viable northern white rhino embryos. In the near future, the embryos will be transferred into southern white rhino surrogate mothers to create northern white rhino offspring. On December 13th, 2020, the incredible BioRescue team of scientists performed the fourth oocyte collection on our northern white rhinos, Najin and Fatu. Even in the face of a global pandemic, these dedicated individuals made it from Europe to carry out the procedure.

14 eggs were collected from Fatu - the youngest of the northern white rhinos - and out of those 14 eggs, two fertilised oocytes developed into viable embryos. These miracle embryos, and the three from the other procedures, are now being stored in liquid nitrogen and will soon be transferred to surrogate southern white rhinos.

Unfortunately, no oocytes were retrieved from Najin, who is Fatu's mother. The team of experts believes that Najin's age and/or health issues could affect the quality of her egg cells. The 31-year-old rhino has a large, tumour in her abdomen, which at this point does not cause acute health problems but may hamper the functionality of her reproductive organs.

Nevertheless, the creation of two more embryos nourishes the hope that despite challenges and delays caused by COVID-19 the northern white rhino can still be saved. The next steps in the programme are already underway and we promise to keep you updated on any new developments.

Ol Pejeta Conservancy.

South African President Ramaphosa's Alleged Secret Trophy Hunting Investment Exposed by PETA



Well known animal rights organisation PETA US claims to have uncovered proof that South Africa's President Cyril Ramaphosa has invested heavily in the trophy hunting industry in SA. PETA (People for the Ethical Treatment of Animals) alleges the SA President has carefully hidden his connections and investments in the controversial industry... but his cover has been blown, they say, by an undercover operation after PETA US investigators travelled to SA in 2020 to expose the President's secret.

While conservationists in SA and around the world campaign to protect South Africa's wildlife, PETA US alleges that the country's own President is "profiting off of these different secretive and sordid animal enterprises" and "directly profiting from the trophy hunting of his country's most revered and iconic species".

"There has long been speculation as to whether Ramaphosa supplies the hunting industry from his Phala Phala Wildlife breeding operation in the Limpopo province," PETA told SApeople in an exclusive interview. "Now, PETA US has uncovered proof that he not only breeds and sells animals to be shot and killed but has also purchased a stake in a hunting company called Tsala Hunting Safaris."

In the video below, the manager of Ramaphosa's Phala Phala game-breeding farm can be heard confirming the link between Phala Phala and Tsala. A co-owner of Tsala allegedly revealed to PETA's undercover agent that Ramaphosa receives 50% of the profits from all Tsala safari hunts since the President allegedly purchased 50% of the company in October 2019.

Tsala has conducted hunts on a property called Diepdriif that President Ramaphosa allegedly owns "and is developing and expanding for that purpose", according to PETA's sources. Tsala, which also operates on other properties, offers hunts of 42 species including the 'Big Five' (leopard, elephant, lion, rhinoceros and buffalo), says PETA. Tsala advertises on social media that it engages in "moral and ethical hunting" and includes photos such as the below:



Tsala Hunting Safaris photos. PETA alleges that President Ramaphosa receives 50% of the profit on Tsala's hunts since allegedly purchasing 50% of the company in October 2019. Photos: FB/Tsala Safaris

PETA stumbled onto the President's link to the hunting industry whilst investigating the fate (deaths) of the Queen's pigeons entered into the SA Million Dollar Race. During that investigation, PETA US discovered President Ramaphosa's own ambition to establish a pigeon racing operation, and his apparent desire to keep it secret. This led to undercover meetings with Ramaphosa's pigeon loft manager who it transpired also manages his alleged trophy hunting breeding operation, says PETA.

A South African PETA US investigator dug further and has discovered and documented Ramaphosa's "secret extended web of trophy hunting financial interests". (SAPeople has viewed several of these documents.) PETA claims despite permits for leopard hunting not being provided by South African environmental authorities, Tsala is still organising these hunts in Namibia and Mozambique. "The leopards are usually baited, shot at night, and finished off the next morning if they are still alive. While hunting is illegal inside the Kruger National Park, Tsala-arranged elephant hunts are common just outside it, in private reserves. The elephants may be hunted in groups, which is also illegal," says PETA.

Lions for Tsala hunts apparently form part of the country's notorious 'canned lion hunting' industry which has become a stain on South Africa's conservation reputation, with lions being bred and reared in captivity before being released onto fenced properties a minimum of four days before they are hunted, with no chance of escape, says PETA.

Rhinoceroses are not advertised on Tsala's website but a Tsala co-owner, allegedly explained to an undercover PETA investigator: "It's [a sensitive subject] because of the poaching situation... if you say, yes, let's go, let's book it, I can probably get a nice big rhino." In another conversation (which appears in the video above), he says, "it is a very sensitive subject, rhinos, to hunt, but obviously we will be very discreet and everything. You can phone a few guys now, and you'd be able to get a rhino, you know quite easily."



A Phala Phala employee looks on as a client from Europe holds a rifle.

PETA's ultimate goal is for President Ramaphosa to cut ties with what they term the "cruel trophy hunting industry".

PETA Founder Ingrid Newkirk says: "President Ramaphosa's profiteering from cruelty to animals and sheer bloodlust will disgust both compassionate South Africans and foreign tourists. Unlike the animals so callously and often ineptly shot to death on his watch, he can get out of the crosshairs by severing ties with trophy hunters. Lions, elephants, buffaloes, and other animals are all individuals who feel pain and fear – they're not collections of body parts waiting to be mounted on some sicko's wall."

UPDATE: The Presidency has denied PETA's allegation that President Ramaphosa has a stake in trophy hunting company Tsala Hunting Safaris, but admitted that Ramaphosa's Phala Phala Wildlife has an arrangement allowing Tsala to hunt on its land for animals (buffalo, impala, kudu, wildebeest) that would "in any event have been culled" as part of wildlife management. However, following PETA's allegations, in news that will be welcomed by conservationists, the Presidency announced that Phala Phala has given notice to Tsala to terminate the hunting relationship. The Presidency said: "This decision is in line with Phala Phala's commitment to sound conservation principles, and its demonstrable compliance with ethical and lawful wildlife management standards."

<https://www.sapeople.com/2020/11/19/ramaphosas-alleged-secret-trophy-hunting-investment-exposed-by-peta/>



Sumatran rhinos show low inbreeding — but when it happens, collapse is quick

The outlook is bleak for Sumatran rhinos. Decades of poaching and habitat loss have precipitated a steep population decline. Once found across Southeast Asia, from the Himalayan foothills to the islands of Borneo and Sumatra, the critically endangered species, *Dicerorhinus sumatrensis*, is now only found in Indonesia. Conservationists estimate that fewer than 100 individuals survive in the wild, living in isolated pockets of forest.

Their rapidly diminishing population, extreme isolation from one another and poor reproductive success have raised fears that the remaining rhinos are likely to suffer from inbreeding problems associated with erosion of genetic diversity.

A new study, published this week in *Nature Communications*, affords rhino conservationists some respite. The study, led by the Centre for Palaeogenetics in Stockholm and an international team of researchers, revealed that the remaining populations of Sumatran rhinos in Borneo and Sumatra exhibit low levels of inbreeding and higher-than-expected genetic diversity.

“We were really surprised,” says Johanna von Seth, a doctoral candidate at the Centre for Palaeogenetics and co-lead author of the study. “In terms of genetics, these are the best results we could have gotten.” It is good news for conservation management of the remaining populations, since it implies that there is still time to preserve the species’ genetic diversity.

Love Dalén, professor of evolutionary genetics at the Centre for Palaeogenetics and co-author, says the findings suggest the remaining rhinos still have the “toolbox” to be able to handle disease threats and future changes in climate and the environment. “It means that if we were to reverse the trend [of poaching and habitat destruction], and if we manage to get rhino numbers back up again, then hopefully we can preserve quite a lot of the genetic diversity, which is going to be very helpful for them in the longer run,” Dalén said.

While the results may allow a sigh of relief, the researchers caution that it could be short-lived. They also looked at genetic patterns in a recently extinct rhino population on the Malaysian Peninsula. Findings indicate that these rhinos experienced a rapid spike in inbreeding prior to extinction that was likely due to small population size.

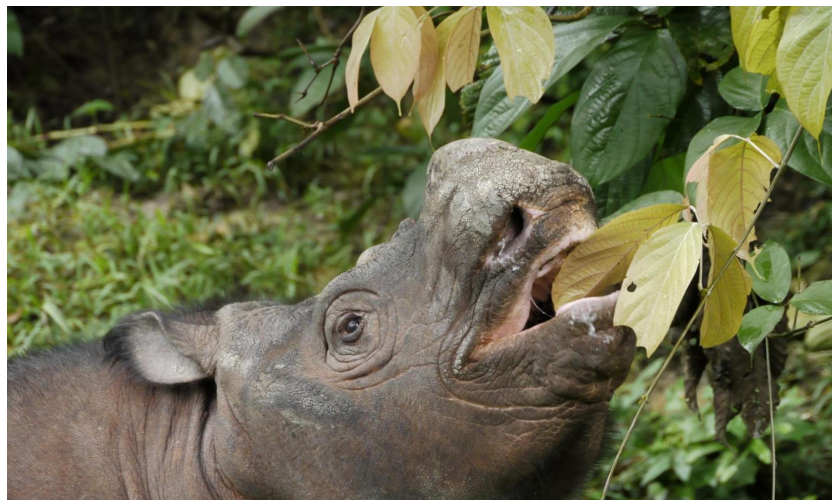
Piecing together the genetic puzzle

Scientists first sequenced the whole Sumatran rhino genome in 2017 using samples from Ipuh, a captive male who lived at Cincinnati Zoo where he sired three offspring. Ipuh’s genome suggested that the species had relatively low levels of genetic diversity and that the world population of Sumatran rhinos peaked at around 57,800 during the most recent ice age. Thereafter, the population went into continuous decline, from which it has never recovered.

In 2017, researchers published results of mitochondrial DNA genome analysis, revealing information about when the three Sumatran rhino subspecies diverged. They found that the most recent common ancestor of the Sumatran rhino lived approximately 360,000 years ago and the subspecies began to diverge about 80,000 years ago, corresponding to major biogeographic events in the Sundaland region.

Of the three subspecies, two are still with us: the western Sumatran rhino (*Dicerorhinus sumatrensis sumatrensis*), found in Sumatra, and the smaller Bornean rhino (*Dicerorhinus sumatrensis harrissoni*). The third subspecies, which used to roam as far afield as India and Bangladesh to northern Thailand, *Dicerorhinus sumatrensis lasiotis*, is now extinct.

The existence of the two extant subspecies on Borneo and Sumatra generates a conservation dilemma: with numbers dwindling to critically low levels, should the two populations be mixed to stave off inbreeding and genetic erosion? Dalén's interest in Sumatran rhinos was sparked by his participation in a genomic study on the woolly rhino, *Coelodonta antiquitatis*. Sumatran rhinos are the extinct species' closest living relative, so his team first sequenced the genome of Kertam, a captive male Sumatran rhino then living at the Borneo Rhino Sanctuary in Malaysia, to use as a reference guide. Upon learning that Sumatran rhinos were themselves on the brink of extinction, Dalén launched a project to study their plight.



Kertam, or “Tam,” a male Sumatran rhinoceros from Borneo whose genome was sequenced for this study. Kertam, who died in 2019, was the last known male rhino in Malaysia. Image by Scuba Zoo.

Low inbreeding, but a stark warning

To study levels of inbreeding and genetic variation in today's Sumatran rhino population, the research team sequenced genomes from 21 living rhinos and museum specimens, using Kertam's genome as a guide to map fragments of DNA from each sample to assemble each genome.

The comparatively low level of inbreeding in the present-day rhino population is likely due to the decline in population size having happened very recently: “Within a generation or two,” according to Dalén. This means that inbreeding hasn't yet caught up with the rhino's current small population size.

However, the researchers also found that there are many potentially harmful mutations hidden in the genomes of these rhinos. Many of these mutations currently exist in a heterozygous inert state, but if inbreeding begins, the consequences could be severe. “Unless the populations start increasing in size, there is a high risk that inbreeding levels will start rising, and consequently that genetic diseases will become more common”, Nicolas Dussex, postdoctoral researcher at the Centre for Palaeogenetics who also co-led the study, said in a statement.

The team also revealed that the population of rhinos on the Malaysian Peninsula experienced a rapid spike in inbreeding levels just before it went extinct. Furthermore, the researchers found genetic patterns indicative of inbreeding depression, a phenomenon that is often found in small populations whereby closely related parents produce offspring that suffer from genetic disease. “Maybe what happened in the Malaysian Peninsula population serves as a warning, an example of what might soon be happening in the other populations,” Dalén said.

To mix or not to mix

The recent discovery of a wild female Sumatran rhino in Indonesian Borneo spurred discussions on how to stave off the effects of possible future inbreeding. Some experts advocate mixing the Bornean and Sumatran subspecies, but this carries genetic risks associated with mixing populations that have adapted to completely separate environments.

“There is a risk that if individuals are translocated into a new environment, their genes are less well adapted to that new environment ... you risk having worse genes spreading in the population, and as a consequence this decreases the population fitness, known as outbreeding depression,” von Seth said.

A comparison of the genomes from the Bornean and Sumatran subspecies found no evidence of local adaptation, which suggests that genetic exchange between the two groups would not harm either subpopulation. The researchers suggest that exchange of genes between Borneo and Sumatra is feasible, by either translocating individuals or using artificial insemination.

Alfred Roca of the University of Illinois at Urbana-Champaign, who led a 2018 study that looked at Sumatran rhino subspecies, advocates mixing the two remaining subspecies. “The numbers of the species are so low that I don’t see any alternative to joining any isolated animals from both islands into a single stock for captive breeding,” he said. However, Terri Roth, a reproductive physiologist and vice president of conservation and science at Cincinnati Zoo, said that while the genetic results perhaps indicate breeding the subspecies would not be problematic, aspects of their basic biology do.

“The Borneo female is half the size of the male rhinos in Sumatra. The feasibility and potential challenges in breeding these two populations when the morphology is significantly different is something that requires serious consideration,” said Roth, who oversaw the captive-breeding program at Cincinnati Zoo. “Science is very important, but we also must pause to look at the animals in a practical way.”

Wanted: More rhinos

Roth, who wasn’t involved in the study, said the findings of the new study are excellent news. “When you have very small populations, you definitely worry about loss of genetic diversity due to inbreeding, but some populations shrink in size while still retaining sufficient diversity.”

Sumatran rhino reproduction is excruciatingly slow. Immature rhinos must endure the relentless pressures of poaching and habitat loss for many years before they can breed. Females attain sexual maturity at 6 or 7 years old, and males at 10 years old. Furthermore, females only mate once every four or five years, and the species’ gestation period is 16 months. Because of this, Roth said, the impacts on the Sumatran rhino’s genetic diversity from inbreeding will take much longer to show up than in many other species.

Loss of fertility is a problem in the wild, where female Sumatran rhinos spend extended periods of time in a non-reproductive state due to the very limited chances of meeting with other rhinos. In light of low natural birth rates and ever-decreasing numbers of rhinos, experts have reached a consensus that human intervention is necessary to stave off extinction. The Indonesian government, local and international experts, and conservation groups aim to boost numbers at captive-breeding facilities.

Currently, seven captive rhinos live in a sanctuary in Sumatra’s Way Kambas National Park, including two breeding females, and one lone female is kept at the Kelian sanctuary in Indonesian Borneo. Although information about levels of inbreeding is useful for such captive-breeding programs, its value depends on the status of the population. If there are plenty of animals in a population, conservation managers can choose suitable, unrelated mates. But if there are very few individuals, as in the case of the Sumatran rhino, then no such luxury exists.

“The importance of producing more offspring as quickly as possible far outweighs the value of avoiding inbreeding in most cases,” Roth said. “If you only have close relatives, you breed them because you need the offspring or the species goes extinct. Besides, female rhinos will lose their fertility if you do not breed them for many years, so waiting for an unrelated male to show up is not recommended.”

This is a predicament facing managers at the Sumatran Rhino Sanctuary. Delilah, a female rhino born there in 2016, is expected to reach sexual maturity this year. However, all three male rhinos in the captive-breeding program are related to her: her father, brother and uncle. Selecting the least-related male is the only option.



In this 2017 image, young Andatu has a breakfast of watermelon after being checked by keepers. Andatu made history as the first captive born Sumatran rhino in Indonesia when he was born in 2012. Image by Jeremy Hance for Mongabay.

“In my opinion, the two highest priorities are to continue breeding the females currently in the managed breeding program at Way Kambas National Park and to capture a few more individuals to bolster this program by providing some unrelated individuals as mates for the calves already produced at the Sumatran Rhino Sanctuary,” Roth said.

According to Zulfi Arsan, senior veterinarian at the Sumatran Rhino Sanctuary, plans are well underway to bring more rhinos into the program. Work is complete on new enclosures that could potentially hold up to five more rhinos. He said there are more options for pairing up a young male, Andatu, who was born under the program in 2012 and also reaches sexual maturity this year, since the females in the program come from a wide range of locations across Sumatra.

Advanced techniques could help

One way to boost breeding success is to begin using such assisted reproductive technologies (ART) as artificial insemination. Although these technologies have never been successful with Sumatran rhinos, some experts say they have huge potential.

“In species with very small population sizes, genetic diversity erodes quickly,” said Alfred Roca. “The high diversity detected in the current generation emphasizes the need to collect cell lines and gametes from every surviving individual, whether wild or in captive breeding programs, so that their genetic diversity can be preserved and eventually restored to future generations of rhinos through advanced reproductive technologies.”

Rudi Putra has worked for more than two decades in northern Sumatra’s Leuser Ecosystem, thought to hold the highest number of Sumatran rhinos in the wild. He chairs the Leuser Conservation Forum and said he agrees that such techniques as artificial insemination will likely be an important tool for saving the Sumatran rhino in the future.

“Technology moves very quickly, so I am confident that ART will help with rhino breeding in time.”

Conservationists in the Leuser Ecosystem are now focused on capturing individuals from a small and fragmented population that has been heavily impacted by a slew of road construction throughout their forest habitat. Rhinos are particularly averse to crossing roads, which have effectively permanently confined them into smaller and smaller pockets of forest.

“This population shows no breeding evidence,” Rudi said. “We are trying to capture them to bring them into captivity at a new breeding facility that we are in the process of setting up.”

Alongside the local and central governments, conservationists have decided on the location of the new captive-breeding center in Aceh province at the northern tip of Sumatra. Rudi said he hopes newly captured rhinos will be able to contribute to the gene pool in the Way Kambas program in southern Sumatra. “In Leuser and Way Kambas, the [subpopulations] are similar, so potentially we could use both ART and transporting rhinos to breed naturally,” he said.

While genetics and advanced techniques cannot solve everything for the Sumatran rhino — ultimately, it is classical on-the-ground conservation that will produce results — Love Dalén said he hopes that genomic work like the new study can help out by bringing hope and providing conservation managers and captive-breeding programs with invaluable information about the relatedness of individual rhinos.

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Indonesia plans IVF for recently captured Sumatran rhino

EAST LAMPUNG, Indonesia — Indonesian authorities will make their first attempt at in vitro fertilization of a Sumatran rhino, aiming to boost the critically endangered species' gene pool in the process.

The egg for the IVF attempt will come from Pahu, a solitary female Sumatran rhino (*Dicerorhinus sumatrensis*) being held at the Kelian Lestari Sumatran Rhino Sanctuary (SRS) in West Kutai district, in the Bornean province of East Kalimantan. Indra Exploitasia, the director of biodiversity conservation at the environment ministry, told Mongabay that the plan was to fertilize egg cells harvested from Pahu with sperm collected from one of the males living at the Way Kambas SRS in Lampung province, on the island of Sumatra.

Pahu was captured from the wild in November 2018 as part of a captive-breeding program for the species. For a year she has been held alone in the facility leading some to question what Indonesian authorities plan for her future. Pahu is believed to be quite old as rhinos go, about 25 years old, but experts say they've found no obvious reproductive problems with her.

However, she weighs only around 360 kilograms (790 pounds), less than half the weight of a typical adult Sumatran rhino, and experts suspect she might be suffering from dwarfism. And because Sumatran rhino mating is rough and at times violent, Pahu's small size has raised fears that she could be injured, or even killed, if conservationists attempt to mate her naturally with a much-larger male. Her small stature has also prompted doubts that she would be able to bring a regular-sized baby to term.

Pahu's isolation at the Kelian Lestari SRS is another potential obstacle. Previous research has indicated that female Sumatran rhinos do not ovulate naturally when males are not present. However, Dedi Candra, a veterinarian working for Indonesia's environment ministry, says some egg cells do develop without males present, albeit at a slower pace, and that researchers have had some success artificially inducing ovulation. Widodo Ramono, executive director of the Indonesia Rhino Foundation (YABI), says that male rhino urine alone may be enough to stimulate ovulation. Conservationists in Indonesia have already made use of urine from captive males, flying a liter to Kalimantan to help lure Pahu into the pit trap where she was captured.

"We are currently monitoring Pahu's reproductive health," Indra told reporters in Way Kambas on Oct. 30. "We must know first when she ovulates, so the egg cells can be retrieved and then fertilized in a test tube."

If the plan goes through, it will be the first IVF attempt on captive Sumatran rhinos by Indonesia, says Widodo. Scientists here previously attempted artificial insemination — injecting sperm into the uterine cavity — with Bina, one of the captive female rhinos at Way Kambas, but it was unsuccessful. For that attempt, they used semen collected from Andalas, a rhino born in captivity at Cincinnati Zoo and now a resident at Way Kambas, where he has sired two offspring, both through natural mating.

Last month, experts in Malaysia attempted to use IVF to fertilize an egg harvested from an older female rhino using sperm collected from a now-deceased male. But that attempt was also unsuccessful, with Malaysian experts citing the low quality of the sperm, taken when the male was very old. The Malaysian conservationists have long requested a transfer of sperm from the Indonesian captive rhinos, but Indonesian authorities have repeatedly declined, citing the need to sort out a long list of paperwork.

If the IVF attempt with Pahu's egg and sperm from Andalas or his younger brother, Harapan, is successful — or Malaysia sends egg cells retrieved from its last rhino to Indonesia and the treatment works— the new offspring would represent a new hope for the species. The populations in Sumatra, *D. s. sumatrensis*, and Borneo, *D. s. harrissoni*, are subspecies that have been genetically separated for hundreds of thousands of years. Mixing the two would give a much-needed boost to the gene pool of a species so diminished —as few as 40 are believed to remain on Earth — that inbreeding is a real risk.

The idea of mixing the Sumatran and Bornean bloodlines initially met with disapproval from conservationists. But in recent years there's been a growing sense of urgency among researchers that the situation is so dire that it's better to focus on preserving the species at all costs rather than trying to maintain two separate subspecies.

Indra said the planned IVF attempt would most likely use sperm from Andalas, who is a proven breeder. "Harapan has never had a chance to mate naturally," Indra said. "So we don't know yet the quality of his sperm, and we haven't tried to collect samples from him." Meanwhile, the surrogate mother could be any captive female Sumatran rhino as long as she's not going under a natural breeding program, Indra added.

A previous global effort to breed captive Sumatran rhinos, launched in the 1980s, fell through a decade later after more than half of the animals died without any calves being produced. But a string of successful captive births at Cincinnati Zoo, and later Way Kambas, and a growing consensus that the species will go extinct without intervention, have laid the groundwork for the latest captive-breeding effort.

The species was brought to the edge of extinction by habitat loss, with Sumatra and Borneo losing vast swaths of forest to oil palm plantations and coal mines, as well as poaching. Now, conservationists believe a low birthrate is the primary threat to Sumatran rhinos' survival. The network of SRS breeding centers (the Indonesian government plans to open a third in Aceh, at the northern tip of Sumatra) holds a combined eight rhinos — seven at Way Kambas and one at Kelian Lestari, including two calves born in captivity. Malaysia has one in captivity, an aging and ailing female named Iman, but otherwise the species is believed to be functionally extinct there.

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We'll finally end with this beautiful picture of a mother and calf.