

NWX-FWS (US)

Moderator: John Taitano
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6:49 am CT

Coordinator: Thank you for standing by. I'd like to inform all parties that today's conference is being recorded. If you have any objections you may disconnect at this time. For assistance during your conference, please press Star 0. Thank you. You may begin.

((Crosstalk))

Bill Brewster: Okay, good to have everybody here for our second meeting of IWCC. Glad everyone took the time to come in and share their thoughts. We have some presenters that I think can be quite helpful. Our main job is to learn and educate ourselves as much as possible on all aspects of wildlife, wildlife management, sustainable wildlife management.

And what I would like to do is first go around the room and let each council member introduce themselves, tell where they're from, and then we'll go from there. Why don't we start with (Keith Martin)?

(Keith Martin): (Keith Martin) I'm from Camdenon, and I was (unintelligible).

Erica Rhoad: I'm Erica Rhoad, National Rifle Association (unintelligible).

Man 1: Could we have - make sure that you push that button in front of you? Could we start again with (Keith)? Push that button and when you're done if you'd turn it off so that it doesn't get a lot of feedback.

(Keith Martin): I'm (Keith Martin), Kansas City, and I host (unintelligible) River Adventures on the (unintelligible).

Erica Rhoad: Erica Rhoad with the National Rifle Association in (unintelligible).

(Bob Oz): (Bob Oz), Atlanta, Georgia, Sportsmen International.

Peter Horn: Peter Horn, New York CIC.

John Jackson: John Jackson with Conservation Voice, New Orleans.

Denise Welker: Denise Welker, (Fulshear), Texas.

Olivia Opre: Olivia Opre from Whitefish, Montana.

Man 1: Turn your button off.

Steven Chancellor: Steven Chancellor, Indiana.

Greg Sheehan: Greg Sheehan with US Fish and Wildlife Service in Washington, DC.

Bill Brewster: Bill Brewster from Oklahoma.

Jenifer Chatfield: Good morning, I'm Jenifer Chatfield. I'm from Florida.

Terry Maple: I'm Terry Maple, I represent Jacksonville Zoo and Gardens and the Association for Zoos and Aquariums.

Doug Hobbs: Morning, I'm Doug Hobbs with US Fish and Wildlife Service.

Jeff Crane: Jeff Crane, Congressional Sportsman Foundation, Maryland.

(Lorena Watson): (Lorena Watson), State Department, Washington, DC.

(Kurt Powers): (Kurt Powers), Special Law and Service.

Bill Brewster: Good day. Also I thought at this time we'd go ahead and introduce our presenters. There'll be up here presenting later. Dr. Tom Snitch, if you would stand please. Peter Chipman here. Clay Brewer is here somewhere, I believe.

Man 2: He's running a little bit late.

Bill Brewster: He's running late. Who am I missing?

Jenifer Chatfield: (John Lucas).

Bill Brewster: (John Lucas), thank you.

Luis Santiago: Luis Santiago (unintelligible).

Bill Brewster: Okay, thank you. I think everybody's had the opportunity to see the written comments that were submitted prior to this that were sent out by Doug and Doug, we really appreciate your efforts to bring everything together on this.

It was kind of a short time frame to get everything together and you and your group have gone above and beyond to try to make sure that we have a good meeting and have everything in order and appreciate you getting the stuff out. In the written comments, I thought it was interesting. There's a lot of comments in there that I think most all of us agree with and sometimes the perceptions of our group is not reality.

So I would hope that those that made written comments that made particular references in it would come forward and show us over the next few months where they can document where they were talking about. We all are quite concerned about poaching issues, about trafficking, about sustainable wildlife.

That is - that's something we all have a very strong belief in. We've all had the opportunity to go all over the world and see the different methods: what works, what doesn't, et cetera. So that's all the opening comments I have, Director Sheehan, your comments.

Greg Sheehan: Thank you, Chairman Brewster. Maybe just a couple quick updates of where we're at - at the Fish and Wildlife Service and what things are happening in our world. First of all, I do want to thank all of the speakers who were able to join us today. We have a great set of speakers, but I want to thank our Fish and Wildlife Service employees who'll be presenting, who've organized the meeting, who are hosting the meeting here in our Atlanta office of the Fish and Wildlife Service and looking forward to that.

A few - a little bit about our international program: our international program has two divisions in it. And we have between the two, we have roughly 85 employees. And in the - the two divisions are what we call management authorities and they do what we most pe- (sic) - I'm sorry, what's the third one I missed?

Bill Brewster: (unintelligible) authority and (unintelligible).

Greg Sheehan: International conservation, I'm sorry -- three programs. We have in our management authority that does the permitting that you're mostly familiar with and our scientific and international conservation programs essentially cover all of the work we do. We do a lot of grants out of those programs, a lot of grant monitoring. But basically work around the world to identify issues that we can do to help out.

And those - that ranges from, you know, the continents of South America, Asia, Africa and even areas in Central and North America where we have some of that interaction of wildlife. Within that, we've had a few changes in the last few months. We've had some retirement that folks move on. Eric Alvarez is our new acting chief of our new international program -- Acting Assistant Director is the technical title, I believe.

We've had Craig Hoover, who is over our management program for quite a number of years, and he moved over to the scientific authority but he's working in that arena now. Right now we have somebody in his place, Pam Scruggs, who does a great job for us overseeing that through this transition of changes. We have Tim Van Norman who was in permitting for a number of years also retired. And we have (Mary Cagliano) has stepped into that role in an interim basis.

Over the scientific authority Richard Ruggerio is over that program for many years and he too opted to take a retirement not long ago and that's the role that Craig is doing and then we have quite a number of vacancies that we're trying to get filled. So I know that's kind of a mouthful but hopefully you can see that we're going through a lot of changes and I'm excited I think that, you

know, we'll end up with a great set of folks there to make sure we move forward properly in these programs.

We are - will announce it before we meet again here so I thought I'd probably give you sort of a heads up. We're working on a strategic plan. When I came into this role and was able to spend some time with our international program realized that while there's different programs in there that have different roles and responsibilities that we really didn't have a strategic plan of where we were going.

And ho- (sic), you know it's a big world we live in with lots of wildlife and how are we trying to best work to develop that conservation and processes that we use to engage in so we've begun. It's pretty intensive, we've got an outside contractor coming in who's helping us with this strategic planning process.

That will not only be just an internal look about what we do and how we do it, but it will engage with our other governmental partners such as State Department, USAID, and others who want to make sure that we are addressing everybody in the government ranks, right, as well as foreign governments where we are able to engage in a best way there.

Secondly, that will involve bringing our NGO community together that - to get feedback and input on that will spend the full range of NGOs who have many different interests and philosophies of international wildlife so we want to hear from everyone.

But the goal of this is to have a plan that will help us move forward as we look at things like how we develop and provide conservation, how we look at our permitting processes around the world, how we look at law enforcement

capacity and how we best go about addressing that and the wildlife traffic in arenas as Chairman Brewster talked about. So all of those will come together and we're hoping to have that out here in the next few months.

But we're entering a phase now where we're beginning this engagement with other outside groups and to give us feedback. Another thing that you'll probably be hearing more of is an effort that we've got to work on migration corridors and in particular Africa but certainly around the world. We've seen this discussed in the past for species like jaguar in Central and South America.

But we really, you know, I guess I feel like it's important and earlier in my career, you know, had a pretty high involvement in habitat protection and restoration. And there's so many areas then if I were to use Africa for a moment as an example, you know, there are many threats to these important habitats that this wildlife relies on. And I don't know that we can jump in as a nation and save everything everywhere. That would be aspirational.

But being more realistic about it, we want to help ensure that those countries that have those important spaces and important places for this wildlife that we all cherish have certain sorts of efforts being made to help those countries out with their sovereign land but in the best way and the most thoughtful way that we can. So that's pretty much what we're working towards in that arena and you'll see more come out on that.

Part of that is engagement quite honestly. Again, with the State Department, with USAID to make sure that we're always working in harmony as we put dollars into these various nations around the world and that we're not in some way working against ourselves. So if we can keep working together in harmony that's important.

And I guess lastly adding a little bit on wildlife trafficking, don't want to get ahead of announcements there but I think you'll be pleased with some of the efforts that we've got coming down the road in our law enforcement and wildlife trafficking world as we work through that. We're trying to continue to turn up the heat to, you know, to address those folks who are illegally taking wildlife for commercial purposes and trying to, you know, harm those - that wonderful wildlife that we all cherish around the world.

So you'll probably be hearing more of that in coming months. But a lot of these things will come up again before we meet again as a council. So I thought I would at least give you a heads up so you knew what was in the pipeline. But I think a whole lot -- doesn't sound like enough. So with that Mr. Chairman, I think I'll put a wrap on that.

Bill Brewster: Thank you, very good comments, Greg.

Greg Sheehan: And thank you all for being here.

Bill Brewster: Mike Oetker, the Acting Regional Director, any comments that you would like to have at the opening?

Mike Oetker: I just wanted to welcome the council to the region. The key is here to support anything that you need and we certainly will work with Doug and everything that you might need to support your meeting here. I thought I would just really briefly talk about the region. We (unintelligible) regional operation here - there's ten page plus an island. We are from North Carolina over to Arkansas including the state of Kentucky down to Louisiana and back over to Florida (unintelligible).

We are the largest Fish and Wildlife Service region by workforce (unintelligible) spread out over that area plus (unintelligible). (Unintelligible) the only - our national wildlife refuge system is about 95 million acres of which in this region is only about four billion (unintelligible). So we're really small on the land side but yet we account of 1/3 of our region in (unintelligible).

(Unintelligible) places where people like to go in the summertime to swim with the manatees down in Florida so really great summer activity. We also have a volunteer workforce that's more than 11,000 volunteers this year. (Unintelligible) were about 4000 hours of volunteers. So not only do we manage a workforce but also I think a lot of people are very interested in what the Fish and Wildlife Service (unintelligible).

Some unique challenges, we have 382 listed species. We also deal with about 700 (unintelligible). So there's no shortage of daily (unintelligible).

Man 1: Migratory species -- not 700 birds.

Mike Oetker: Migratory -- thank you. Migratory birds. So no shortage of (unintelligible) and so (unintelligible) got a number of people across Fish and Wildlife Service around the room who will be maybe in and out for the visit and to help with whatever you need. Just let us know. And we have to figure out lunch (unintelligible) so thank you for giving us this opportunity and we welcome you.

Bill Brewster: Thank you, okay. First on our agenda here is US Ports of Entry balancing border security and customer service and that would be Luis Santiago, Special Agent in Charge of Region 4.

Luis Santiago: Good morning (unintelligible). I'm Luis Santiago, I'm the Special Agent in Charge for the (unintelligible) region and I've been working with the Fish and Wildlife for 32 years. I started my career as a wildlife inspector for (unintelligible) ports of entry. I worked (unintelligible) in Miami. (Unintelligible) for 17 years. (Unintelligible) became a special agent (unintelligible) a few years. (Unintelligible) our director (unintelligible). (Unintelligible) things that are in common. We do our (unintelligible).

(Unintelligible) responsible for (unintelligible) our natural resources (unintelligible). (Unintelligible) and basically (unintelligible). (Unintelligible) the photo shows a baby king cobra that was imported, an individual imported this -- attempted to smuggle into the US by international mail and it's (unintelligible) prepared the homeland through our border ports. The detection of this illegal shipment led to an investigation and arrest of the smuggler, who was sentenced to several months in prison.

So the mission of the US Fish and Wildlife Service is to working with others to conserve, protect and enhance fish, wildlife and plant and their habitats for the continuing benefit of the American people. The others in the service mission statement includes individuals, businesses, interest group and domestic and international conservation partners. Little bit of the history of our inspection program. The inspectors have been working at our nation's borders since the inception of the wildlife inspection program in 1976.

Back in the '60s and the '70s the worst legal and illegal trade in wildlife quickly arose while at the same time it became apparent that many of the (award) species were faced with possible extinction. The service then created the Wildlife Inspection Program to address that threat. Wildlife smugglers are aware of the exceptional work that's done by our wildlife inspectors to

interdict illegal wildlife shipments and these smugglers are continually evolving their smuggling methods in an attempt to evade detection.

Okay, so wildlife inspectors must equally be tenacious and innovative to make these challenge and keep current on technology (unintelligible) that means doing their work. So the service currently has 116 wildlife inspectors stationed at 38 ports of entry throughout the United States including supervisory wildlife inspectors who oversee our (unintelligible) inspectors. We also have four senior wildlife inspectors working at our headquarters.

They work with our international counterpart and provide assistance and guidance to our wildlife inspectors in the field and they also work to enhance the detection efforts. The service recently created a wildlife inspector detector dog program. We currently have seven wildlife inspector K9 teams stationed across the United States. I would like to introduce each one of them. First we have (Momo), he is stationed in Hawaii. Next is Doc and he works out of Anchorage.

(Douglas) sniffs out wildlife in Houston, Rocket is our next K9 who helps protect the southern California border. This is Sam -- Sam is stationed in Puerto Rico. Piper, he works out of our Miami port office. And last but not last is Beans -- Beans is our newest K9 and all of the working K9s are shelter rescues.

These dogs and their wildlife inspector handlers graduated from a comprehensive training program and where they were trained to detect wildlife product scents and to work alongside wildlife inspectors in environments such as air cargo areas, warehouses, ocean containers, international mail facilities and the US border crossings.

Since the K9s are trained to accurately detect the presence of wildlife without requiring the packages to be opened, they increase the speed and the efficiency of the screening process for these inspections. This successful team of K9s have discovered a myriad of wildlife and wildlife products such as cargo shipment of live protected birds, a commercial shipment of shark cartilage powder, numerous boxes of pipe (unintelligible) issues that were concealed in a shipment of shoes made out of domestic leathers.

They also have encountered American ginseng, bush meat and numerous live US native and protected wildlife such as turtles before they were smuggled from the US. So wildlife inspectors they have a vast array of responsibilities. They -- like I mentioned earlier -- they're stationed at the 38 US ports. We can see on the map a distribution of the different locations where we are.

These ports are located across the United States in border ports, seaports, and international airports. The inspectors have a vast array of responsibilities which include the facilitation of the legal wildlife trade, working directly with importers and exporters and travelers to ensure US laws are followed. They also work with importers and exporters to ensure that the paperwork complies with US laws.

They work on identifying wildlife and wildlife products directly, assisting special agents with investigations into the illegal side of the wildlife trade, and participating in the (unintelligible) reduction and educational events such as local outreach and media interviews. They also provide identification and smuggling techniques, training to federal and international counterparts and also placing fees and detain wildlife live animals but we have (unintelligible) and we have wildlife facilities for their care and eventual placement.

Our inspectors are stationed in a variety of settings and a variety of ports across the nation. Those include ocean and air cargo, US airports, border crossings, express carriers and US international mail facilities. With customer service in mind and the timely processing of cargo and packages, wildlife inspectors go the extra mile by working on holidays and during non-regular duty hours.

With proper notification they will be where businesses and the public need them to be in - need them to be to ensure that US laws are followed. Slide on passenger baggage type of activity: our inspectors encounter a vast array of wildlife products in passenger baggage. These items can include bush meat, small commercial shipments, live wildlife and vacation souvenirs from tourists traveling abroad.

Many prohibited items that are imported illegally into the US are purchased in foreign countries as souvenirs and brought to the US by travelers who are unaware of the prohibitions. To assist the public, wildlife inspectors create awareness, publications such as the Buyer Beware pamphlet. The inspectors also assist US travelers before they leave the US and help them returning home, working with travelers before they leave home helps prevent the import of illegal souvenirs and food items, food products.

However, wildlife inspector also still frequently encounter wildlife being intentionally smuggled into the US by people for commercial gain. For example, depicted in this picture in the bottom over here is that one was an individual attempted to smuggle live birds into the United States to be sold in the pet trade. They basically drug the birds and attach them to their body and wear loose clothes to conceal their items.

This is a frequent encountered event coming from different countries. There's a big market on birds. We have conducted various investigations into these illegal activities. In the air cargo inspections, the bulk of the wildlife inspections are conducted in this area. These inspections take place at customs bonded warehouses located both at airports and offsite. The inspections take - can take place at also at sometimes at cargo facilities of airlines.

Examples of wildlife products imported into the US via air trade include live animals, hunting trophies, handicraft items and fashion industry items. Wildlife inspector also monitors the shipping of live animals to ensure they are shipped humanely per international standards. In ocean cargo, inspections take the longest to complete. Those are very complex due to the volume and the containerized nature of those shipments.

A complete inspection of a targeted ocean shipping container may require a crane or a forklift to offload a container, transport it to a customs (unintelligible) warehouse and (unintelligible) for complete removal of container contents. And then the contents must be then placed back into the container undamaged following the inspection.

So some of these type of inspections can take the most part of a whole day if not longer when we take into consideration all the coordination that goes into getting the setup of the inspection. So inspectors work closely with CBP Customs and Border Protection at land border inspections to inspect all forms of transport. The inspector for example protects the something (unintelligible) by inspecting boats for (unintelligible).

These orange areas are wildlife species that are devastating the ecosystem and fisheries in our Great Lakes and other freshwater bodies. At our southern border, wildlife inspectors examine passenger vehicles, commercial trucks,

railroad cars, and pedestrian traffic. An example of wildlife seized at the border includes on the lower picture there that (unintelligible). It was a tiger cub that was encountered and discovered in the foot well of a vehicle -- a passenger vehicle crossing the California Mexico border.

The - at the mail facility wildlife inspectors and our K9s are most effective conducting those public inspections and they can screen thousands of packages entering and leaving the United States. We work at international air facilities. We have two major ports of entry in this region, in Louisville and Memphis for FedEx and UPS and those are, you know, thousands and thousands of packages coming in an hour.

So we use the detector dogs in those settings to be more effective. There is a large volume of wildlife and wildlife products shipped in and out of the US through the international mail. Inspector has discovered things like monkey meat, live venomous reptiles, and a wide variety of other wildlife products. Anything can be, you know, placed in a box and shipped internationally.

Transnational organized criminals profit from the illegal wildlife trade and smuggle wildlife using various methods only to basically in order to counter this, our wildlife inspector must keep current on American technology and work closely with intelligence analysts. As shown here, wildlife inspectors can inspect something as ordinary as some stereo speakers (unintelligible).

That's some subwoofers or speakers only to find the x-ray that live protected monitor lizards were hidden inside the speaker enclosure and that was the lizards that were encountered there. In the x-ray photo of the SUV the red arrow points to also hidden wildlife in the comp- (sic) rear compartment of the vehicle. So wildlife inspectors typically have university degrees in a natural

resources field. After joining our ranks, they are provided with an intense expensive training program at our Federal Law Enforcement Training Center.

They are also followed, you know, that's followed by a field training as well. The inspectors must be able to quickly identify wildlife in any shipment. This is an example of different scenes. They are from the same species but the same gen- (sic) same genus but different species. They're both lizards and the screen on the left is the (unintelligible) lizard that is still found from South Africa and, I mean, South America and the one on the right is a monitor lizard and those are mainly from Africa or Asia.

So (unintelligible) things I mean (unintelligible) not to make a determination about the things. Sometimes it's fake, sometimes it's the real thing so they have developed a technique of identifying patterns for the real stuff and how to detect and determine patterns from (unintelligible) leather, those type of things that are make out of common leather - leather goods. The brown on the left you think it's real, it is a fake. So that one is a fake one. The grey one in the middle is a fake.

How about the last one -- it's a real (Makori). The inspectors also proactively provide customer service. They meet with importers and exporters, correcting errors and explaining proper procedures. They assist individual business and the public basically explaining proper procedures and guidance on the regulations so that the shipments are prepared timely and accurately.

Our inspectors also assist US hunters prior to international hunting trips to thoroughly explain the process for bringing wildlife trophies back into the US. Outreach is also an important part of the wildlife inspector's job. The inspectors are popular guest speakers at pools, nature centers, community conservation programs, environmental fairs. We have a program with our Fish

and Wildlife repository in Denver where we put educational kits with coloring (unintelligible).

We make those available for educational purposes as you see in this slide and our field offices have those available for whenever they have public engagements. The wildlife inspectors also work with our counterparts in customs and border protection. We work with the Centers of Disease and Control Prevention, the CDC, Animal and Plant Health Inspection Service, APHIS, the US Postal Service, and also with state conservation law enforcement officers, you know.

This photo here, those are Miami K9s based in Miami, Florida working in partnership with the Florida Fish and Wildlife Conservation Commission K9 Team. So why is the service provided by wildlife inspectors relevant to the US citizens and the taxpayers? Introductions of invasive and interior species such as grass carp, (unintelligible), and (unintelligible) mussels have had an (unintelligible) impact on US ecosystems and wildlife and sports fisheries populations as well as US industry and recreation.

Illegal and unregulated importations of wildlife can introduce diseases impacting human health as well as having devastating impact on US businesses. Poachers and smugglers impact our local wildlife shown in these photos. The Saguaro Cactus was dug up by a cactus smuggler to sell and the American Paddlefish are poached for their caviar.

Finally, if illegal trade is allowed to continue it perpetuates international organized crime and promotes an unfair business environment and reduced profits for legitimate law abiding US citizens and businesses.

In conclusion, the Fish and Wildlife Service wildlife inspectors perform the vital functions of working at US ports of entry to protect the homeland against foreign threats such as invasive species and exotic disease outbreak, protecting US species from illegal commercial exploitation in the international wildlife trade, cooperating with domestic and foreign conservation entities that benefit wildlife populations in the US and worldwide.

Facilitating the legal trade and sustainable use of wildlife and combating global illegal wildlife trafficking through diligent detection and interdiction efforts. I think we have some time to answer and entertain some questions if you have any questions about the (unintelligible).

Bill Brewster: (Unintelligible) that I've learned a lot -- hopefully everyone has. I hope the council would refrain from specific issue questions but ask you broad questions about all of this. Something that kind of hit my mind while you were going through it, what percentage of the problems that occur do you feel -- just a guess -- are intentional deception and what percentage are paperwork mistakes or country of origin mistakes? We're dealing with countries all over the world.

Luis Santiago: Right.

Bill Brewster: I understand that. In some cases, people may not be overly educated in how to properly do it and the intentional deception to me is quite different and should be punished as strongly as possible. I'm just curious, what if you see a lot of intentional deception or if it's large part (unintelligible)?

Luis Santiago: Most of our cases and investigations are targeting cases as intentional efforts. I mean, we understand percentage wise, I mean the wildlife trade is huge - both legal and illegal traffic. But, you know, but it's certainly a smaller

percentage on the illegal side. I just highlight it because of the nature of some of our cases and investigations but we have thousands of registered wildlife importers.

US regulations require any wildlife importers to be registered with the service (unintelligible) they have (unintelligible) coming to our staff wildlife ports and they have to apply for a special permit to import (unintelligible) but then they have to make arrangements for those type of imports and it requires - it's like a special (unintelligible) permit.

(Unintelligible) given on a limited basis but I think the (unintelligible) that would recognize the fact that sometimes (unintelligible) the process.

(Unintelligible) we take all those things into consideration when we are working our investigations.

Bill Brewster: Very good. Questions from the council? Erica?

Erica Rhoad: Do you have any idea of the percentage of people that are intentionally violating the law that you're catching? Do you know (unintelligible) how many are not?

Luis Santiago: We are making headway and we've seen (unintelligible). All right, so did I answer that? Any questions on this side? Yes?

(Lorena Watson): (Unintelligible) interesting. I've been travelling a little bit abroad for the State Department and I've seen - I've met with some folks who work on inspections at the airport including I was recently in ATIS and I know there seems to be a lot of interest in the sniffer dog programs and having sniffer dogs so I'm wanted - I have two questions on the sniffer dogs.

Are they trained for specific areas, you know, do they have kind of expertise and how -- for the amount of work that it takes to train them and maintain them -- how much of an impact do you think that they are having either now or going forward? Because I'm seeing this as a real interest area. We want a sniffer dog program, we want a sniffer dog program, and maybe it's another tool that the inspectors can use and it won't have a big effect. So I'm just - I'm wondering about its popularity versus its impact.

Luis Santiago: For here and abroad?

(Lorena Watson): Any way you want to answer that.

Luis Santiago: So the effectiveness on the program - they're trained on five initial scents that were targeted because of the common encountering of the type of wildlife. But they can be trained on additional scents by the handler. So right now, we have seven. We're looking at possibly adding some additional teams to those seven and the benefit of the dogs is that we can screen a large volume of cargo without having to open packages.

So they can detect like in the mail facilities, they can screen through the belts, I mean, they're trained to run through the belts and sniff packages out of that environment without being scared of the motorized equipment and stuff like that. As well as on the cargo areas, they can go through pallets and sniff out without having to - I was an inspector for almost ten years and, you know, there was a - you have to go and open cases and dig through manifests and look for indicators.

With a dog, you can make use of both the Intel that you can gather and then target certain areas and be more effective and conduct a lot more screening that way. So it'll be a good tool to have. Defense is something that you build

into the K9 and it can be developed for different type of target depending on the area.

So we're looking right now at specific issues the port that they're stationed at and then making sure that the handlers are trained on both particular scents so they can be more effective on kind of tailored to their areas. Yes?

John Jackson: John - thank you. John Jackson -- first a question about this presentation. Is this a national presentation or is this something developed by the region? I guess there's a brochure or something you can slide...

Luis Santiago: This one has both the regional office and headquarters office.

John Jackson: The reason I was asking is there was a customer service page, yet discovered that customer service is not something I'm accustomed to from Fish and Wildlife Service inspection. And you they had like three very important points. One was offering preliminary review permits, potential problems somebody can bring it to you (unintelligible) and say is this legal or not and what do you want for this?

And that was very, very important. I'm not seeing that in some of the other ports frankly.

Luis Santiago: Okay.

John Jackson: Is that customer service is not part of their business in some of the other ports. It's far from that.

Luis Santiago: You know, it does (unintelligible) that it's happening it would be good for us to know because part of the effort is the education and making sure that

people are familiar with the regulations, the foreign law and the type of permits that are required. The other thing that is important is that even if a wildlife is not protected, a particular country still might require particular permits for any kind of wildlife. So just meeting US regulations it doesn't cover all the bases.

So we need to look at internationally where the person is going to, what are they intending to bring back, and what are the regulations in that particular country for making sure that they need that foreign country requirements because if there's missing documentation, missing permits from a foreign country that still is enforced by Fish and Wildlife Service under the Lacey Act.

John Jackson: That brings me to my real question and my experience is different from port to port, from region to region. Where there is a detention or a seizure of an import wildlife product, do you - is it practice and policy to inform a foreign nation of that detention or that seizure?

Luis Santiago: Depends on the case. Depending on the case, we have information on the current law in different countries and sometimes we detain a shipment because of a permit issue, for example or there's no signatory authority on the document so we have cases where we contact our senior wildlife inspector at headquarters and then they reach out to foreign countries to, you know, get certifications or confirm the validity of a document if it's a document - documentary type of, you know, hold up.

John Jackson: All of my experiences have been bad where the foreign country has no idea what's going on and was never informed by the (unintelligible) ever and seized and a foreign country couldn't tell you about it two years later. This is something that's recurring in some of the ports (unintelligible).

Erica Rhoad: I just wanted to say how do you determine where you'll inspect knowing that you can't inspect everything? And, you know, is there some type of analysis that you look at saying this could be the most (unintelligible) use of our resources?

Luis Santiago: So are you asking for the ports where we're staffed or how we staff ports? Because this...

Erica Rhoad: I think (unintelligible). I mean, that'd be huge with your limited resources. Some things you have to inspect but other things like the mail or...

Luis Santiago: Right.

Erica Rhoad: ... (Unintelligible).

Luis Santiago: So our daily functions, I mean, we work together with other government inspection agencies: CBP, USDA, they're coming there with our laws and regulations as well so a lot of this stuff, you know, may come through referrals. But we have an Intel section that we are currently enhancing - further developing that section. We're working CBP on a targeting program where we're going to be jointly working with them and their CPAC and ACC, the Automated Clearance- (sic) Cargo Clearance.

So those are going to be too- (sic) those are tools that we use currently to target particular threats. So we have some targeting measures that we have in place, then we have some Intel on path violators, information that we received from foreign countries. So we cannot target based on threat or threat analysis to be more effective in conducting and deploying our resources.

In terms of nationwide, the wildlife imports have to go through our designated ports of entry - wildlife designated ports. So if something comes through a port that is not a staffed port or a wildlife port, they get sent to a wildlife port.

Bill Brewster: Terry?

Terry Maple: A few years ago, Zoo Atlanta put together a really good trafficking exhibit, I'm sure you're familiar with it. And I'm wondering if you work regularly with accredited zoos and aquariums try to expand the educational effort that's being made in these public institutions which educate millions of people.

Luis Santiago: Right.

Terry Maple: But I know in airports frequently you'll see exhibits like this - that people walk right by them. Have you had any contact with zoos to try to do more of this?

Luis Santiago: We have had in the past in terms of displays and things like that, not so much. We have a pretty good program with airports and here in Atlanta we have some displays at the port, but with the zoos and the aquariums we partner a lot with them for holding activities when we confiscate live wildlife shipments the aquarium, I mean, the Atlanta Aquarium is a big partner for us to house tropical fish, coral and the zoos are our main point of contact for placing either temporarily or permanent some of the wildlife that we encounter.

The problem with zoos is a lot of times we - the kind of stuff that we see is stuff that is not of interest for a zoo or is high volume and they don't have enough room for the stuff that we confiscate so then we have to contract out, you know, private entity to, you know, house and hold our, you know, seizures until we have, you know, go through the corps system.

Erica Rhoad: (Unintelligible) actually provide care but I'm thinking that's not...

Luis Santiago: Well, they coordinate...

Erica Rhoad: ...okay.

Luis Santiago: ...the placement of the wildlife and we have evidence custodians also on our major ports of entry and they basically work with our contractors to transfer, you know, our seized items to those facilities.

Erica Rhoad: Because I think being trained and able to provide care to that range of...

Luis Santiago: Yes.

Erica Rhoad: ...(unintelligible) that would be difficult.

Luis Santiago: No, we hold them at the office and...

Erica Rhoad: Yes.

Luis Santiago: ...you know, find placement and we already have a contract in place...

Erica Rhoad: Yes.

Luis Santiago: ...on where to take those.

Erica Rhoad: Yes.

Bill Brewster: You may already be doing it but it kind of hit me, you're listening. Do you currently do or would you be interested in doing some seminars at the DNC or SCI where large groups of THs and foreign government officials so you could go through what (unintelligible) and hopefully use some of the accidental mistakes and give you more time to catch the really bad guys.

Luis Santiago: Right, we do, we - I think on the last SCI conference we had our refuge agent in Nashville attended to that one and presented on that group. And historically we have had some tables at the meetings providing, you know...

Bill Brewster: Yes.

Luis Santiago: ...Q&A. I'm not sure like a formal presentation as part of the program, but that's something that we can entertain and definitely, you know, provide some information.

Bill Brewster: I visited with your people at SCI in the past on some issues that I wanted to know about before I went somewhere. But I was just wondering if when you might be able to have a seminar at 8:00, 9:00 something and let the broad public know - not the public but everybody there, that is the public know that they could come and listen to the provisions that are in here for importation.

Luis Santiago: Well, we definitely could, you know, work with you on that.

Bill Brewster: Okay.

Luis Santiago: You know, if there is a particular area that, you know, you want to ensure that we cover we can certainly, you know...

Bill Brewster: Great.

Luis Santiago: ...do that - accommodate for that.

John Jackson: I just want to follow up with my question. I don't think I was clear. So I'll be a little more direct. There is a CITES resolution that requires -- of course it's not a requirement, it's a recommendation -- all sites resolutions recommendations that the recommendation for importing countries that when they detain or seize a trophy because of some irregularity, some invalidity or whatever that they treat as contraband that they immediately form- (sic) inform the exporting country.

Because so they know about it, because it's their product that's been handled unlawfully. And that's - I haven't found that that's pack- (sic) practice of the Fish and Wildlife Service. Being a such a larger importer, it's a handicap to all the foreign countries that trade in wildlife if they're not informed what's going on with their products when they- (sic) when there's something wrong with it in the United State is the point I'm trying to make.

Luis Santiago: Well, I'm not sure - if I know that we put together an annual report but I don't know if on a regular basis for each incident if they get contacted immediately but...

John Jackson: One of the things that I meant to tell you - suggest to this council we deal with because...

Paul: You know, it's interesting. We have a forensics lab up in I want to say Eugene, Oregon but that's wrong. We're...

Man 1: Ashland.

Paul: Ashland, Oregon. I was able to go visit that not too long ago and a lot of the products. I think you saw some leathers that were there from snakes and things trying to determine if they were real or not and at this forensics laboratory, occasionally products are shipped there or samples to determine if these were illegal shipments or not and an interesting item that they shared with me is that one - we do a lot of wood inspections on importations.

Hasn't been talked about here a lot but that takes a term out of time and a large instrument manufacturer here in the United States was importing wood for these instruments and it was believed, you know, and reported to be a certain type of wood and that's what the instrument company was expecting so we sent it there for evaluation and it was actually fraudulent wood that was being shipped into the instrument provider.

So it wasn't necessarily any laws broken of either of these woods but in fact instrument company learned through our forensics laboratory that they were being sold fake products and so I would hope at times this isn't just about, you know, seeing who (unintelligible) but I think it also helps some of these importers (unintelligible) think they are getting. While that's not a primary objective of this program, it's certainly a secondary objective I think.

Bill Brewster: Very good, Paul.

(Bob Oz): Just turning the questions to the international hunting side of things, what do you see as the biggest challenges or issues that occur from an inspection standpoint and more importantly, how would you suggest that you could address these both in terms of affordable services point of view but also for the importers that are trying to bring their legal property...

Luis Santiago: Sure.

(Bob Oz): ...back into the United States.

Luis Santiago: I think a key component to that would be that create work prior to conducting, you know, the expedition or making sure that the hunter is aware of all the legal requirements. But on the return side, some of the things that we see a lot is permits not done correctly or CITES tax that are required not properly processed, permit validation is a big issue and it's on those numerous occasions where the foreign customs authorities don't validate the CITES experiment, a lot of those are what you may call a technical type violations.

So we take a look at those and cannot gauge what the impact is on, you know, on the violation itself. So it is just the permit covering the amount that is being forwarded but it's not validated at the bottom. I don't see that as a major violation, I mean, there's a permit that already allows for certain quantity coming in so just the fact that it is not validated doesn't -- in my opinion -- doesn't, you know, make the permit null.

So those are some of the things that we see, you know, for CITES species, making sure that if it's an Appendix 1 has an import permit from the US as well as the foreign government permit and then the other issues will be any licenses or if there's a wide variety of requirements and on our Web site we can flip it on later, but there's a lot of information there about the different requirements, the different permit applications for particular species, I mean there's specific guidance there.

So the more informed the hunter is before conducting the activity, it would minimize the possibility of, you know, coming across some violation or some technicality.

DeniseWelker: That kind of leads to my question. For a first time hunter, most of us in the room have experienced this but recommend what to do. Do you find it easier if the hunter searches out a good importer first or goes to you all and asks what are all the rules and regulations I need because they don't understand really they need to go hand-in-hand, their importer and Fish and Game. So which process makes it simpler maybe for the person that's actually going to be bringing animals home?

Luis Santiago: I think our Web site have pretty comprehensive information on it combined with contacting one of our border officers. I mean, our inspectors are well versed on the requirements so if, you know, if somebody, a new hunter has questions about do I - am I meeting all the requirements and do I need any additional permits?

The country that that person is intending to do the activity that's key also because then we can inform about particular requirements from that country and that way combined with, you know, the brokers and - or the people that are going to be helping in conducting the importation, then you can pretty much cover most of the bases and minimize any (unintelligible).

DeniseWelker: Because what we sometimes see is once we tell people, do you understand once you leave wherever you are and you're going through Fish and Game, they don't understand they have to have someone, an importer, meet Fish and Game to get the next, last step of the process to get it home. I think that's where the confusion is for people. They're like, well once it's here, where do I go with it? And most people don't understand they actually have to have an importer receiving that product for them.

Luis Santiago: Right.

Denise Welker: But they - that is where sometimes the confusion is. So that - I guess that's kind of the question I'm asking, is it easier to get to an importer first or go to your Web site first? What do you think makes that process smoother?

Luis Santiago: From a legal standpoint...

Denise Welker: Yes.

Luis Santiago: ...going to our Web site and finding all the requirements, the import side, I mean, that, once you have legally taken that wildlife, right, so you want to ensure that you are meeting all the legal requirements because it's not going to matter if you made all the proper arrangements for the import if you're missing some legal requirements and the import is going to jeopardize and you take the risk of, you know, getting the trophies confiscated.

Bill Brewster: That to me would kind of go back to the question earlier concerning the (unintelligible) symposium you said...

Luis Santiago: Yes.

Bill Brewster: ...gatherings of hunters everyone could see what is necessary. And a lot of my friends I know have no clue of what all is necessary. And so the more that we can educate everybody involved in the process, the fewer mistakes he's going to have to deal with and then they really go after the fraudulent.

Greg Sheehan: That's exactly the process (unintelligible).

Bill Brewster: Yes, lack of knowledge.

Luis Santiago: So that could be tailored where you have the legal aspect and then have the brokers, and the, you know, the import process and then kind of have something comprehensive so they get everything in one stop.

Bill Brewster: (Unintelligible) I think almost everything's been asked - not everybody's asked it yet. There's one more hand up. But we'll take that and then we'll move on. Peter Horn? I was trying to (unintelligible) while ago.

Peter Horn: (Unintelligible) looks like Liberia. You need these proper documents to bring in something. You need to make it translated, you need the (unintelligible) not only sportsmen and women but tourists in order to take it.

Luis Santiago: Right. On the Web site, we have, you know, we have an opportunity to kind of overview that but the Web site has a segment that is for businesses like wildlife trade, there's a section for hunters and a requirement for hunters. Each of our pages have links to related information for foreign entities and you have links to CITES.org.

If you have particular questions about country, it can direct you to those links where you can find like CITES regulations on all the foreign countries, who's the management authority for each of those countries too and their contact number so all that information is readily available. I think we're going to have some opportunity to go over, you know, our Web and show you, you know, the different links and the different information that is available.

Peter Horn: Right. You will have another opportunity in the city to (unintelligible).

(Bob Oz): I was just going to say Atlanta in particular has had a longstanding, very, very high reputation compared to all the ports I think in the US. There's definitely an inconsistency from one port to another.

Luis Santiago: (Unintelligible) to interrupt.

(Bob Oz): No, your reputation here is outstanding. And it's consistent. But you see inconsistent patterns at others. Some of the things that you may see is you may see, you know, here is the list of documents you have to provide me and three fourths of the documents don't exist. They're, you know, they're somebody's imagination. And - but I would just encourage Atlanta and Greg to use Atlanta, you know, to try to get consistency throughout some of the other ones because I think you guys are the example.

Luis Santiago: We try to be as consistent as possible and I mean we're separated by eight regions and nine in eight regions but one of the things that we did, you know, many years back was we went to direct line authority and basically we're on their headquarters it's a streamline, you know, the application of regulations and laws and, you know, directives and policies and so forth.

But still, I mean, having that separation across the nation then you're going to have individual inspector that, you know, might feel a different way than his supervisor or his manager so there always, you know, those kinds of things that we need to, you know, make sure that we're applying regulations and policy uniformly across the board definitely.

Bill Brewster: Okay, well, thank you for a very in depth presentation and...

Luis Santiago: Sure, my pleasure.

Bill Brewster: ...it's helped me understand, hopefully it has everyone.

Luis Santiago: I'll be around and if you guys have any question, you know, I'll be, you know, more than happy to answer.

Erica Rhoad: Okay, thank you.

Bill Brewster: Okay, next up is a presenter on the anti-poaching or I guess counter-poaching is what he terms it now. And counter-poaching and anti-trafficking. Dr. Thomas Snitch is a PhD Professor of Mathematics, has - understands the term algorithms and all those things that most of us have only heard and don't have a great understanding of.

But has some unique approaches and has worked in the anti-poaching kind of all over the world for people on all sides of the wildlife issue and we're pleased to have Dr. Snitch here today to make a presentation. Also one of our council members just arrived, would you announce your name and where you're from, sir?

Chris: Chris (Unintelligible) - I'm from Dallas, Texas.

Bill Brewster: Okay. Dr. Snitch, the floor is yours.

Dr. Tom Snitch: Well, thank you (unintelligible).

Bill Brewster: He needs to put the mic on you. Thought he might - something is not working.

Dr. Tom Snitch: Is that better?

Erica: Yes.

Bill Brewster: You're still late.

Dr. Tom Snitch: Well, I guess I'm the designated academic for this exercise here today so I'm going to try to encapsulate eight years of research into about 30 minutes talking about counter-poaching and what doesn't work, what might work, and has shown some potential and then, if I can, end up very respectfully looking at the charge for this panel and looking at some of the tasks that you've been assigned to address and give some thoughts about how you might formulate some of those answers. I started doing work like this 43 years ago.

My doctoral dissertation was using econometric models of how people gambled in casinos and applied it to terrorist behavior and how they picked out their targets. And at that time, that was really the only the economic modeling that we had and back in the mid '70s people said, "You can't count and figure out how terrorists operate. They're all crazy, irrational people." Well, and as we've learned they're not.

They do things very simply and systematically and so I went from that to tracking narcoterrorists, human traffickers, I spent a lot of years tracking illegal nuclear trade around the world. I had the joy of spending a year working at the Fukushima Research Facility trying to do some physics there - real physics there.

And in the past eight years we worked at the University of Maryland developing programs to try to identify very specific intersections or roads in Baghdad, Iraq and Afghanistan where we thought it was likely that an IED bomb would be placed at night. And so we used a lot of different technology, mathematics, satellite imagery, very, very advanced drones. We'll talk about that, too. And we got very, very good at predicting where it was likely that an IED bomb would be placed.

We could go and intercept it before the soldier detonated it. The good news with that is we used drones for persistent surveillance, so we would videotape the intersection where we thought the bomb was going to be put in and then we'd eventually see some person sneaking something under the garbage who would be able to follow them to a safe house but the good news is we could run the tape backwards and watch them walk into the bomb factory and so we could get a two-for-one on that.

About seven years ago, I was walking across the Maasai Mara and a ranger said to me, "You're a professor. We have a terrible problem with poaching. Can you help us?" And I thought, well, that's not really my field but could I make the analogy that terrorists are to poachers as US soldiers are to rhinos. And with the mathematics that we used in Iraq and Afghanistan, could we use that in Africa to try to determine how poachers operated? And as you'll see the math works pretty well.

Agent Santiago took part of my thunder by using a cute dog picture. Nice - very, very good. That means I have to go with a cute bear picture but it's not going to be the bear you think. About 30 years ago there was a big national survey of professors and they said pick out one page in one book that an incoming student of science -- a freshman in college -- should read. And people of course came up with "Origin of the Species", Steven Hawking, Linnaeus, all these things.

I came up with a cute bear and I hope this -- uh oh. Someone's fired. It's o- (sic) it's the page I picked out and I have every one of my students read this at the start of every class is the first page of A.A. Milne "Winnie the Pooh". And people laugh at this and they say, "Why would you do that?" And I say, "Well, let's read here." Here's Edward Bear, the cute bear, Winnie the Pooh, coming

down the steps on the back of his head: bump, bump, bump. He's coming down the steps.

And he said, "As far as I know, this is the only way of coming down stairs but sometimes if my head didn't hurt so much, I could feel a better way to come down a flight of steps." Maybe I can't, maybe there is, but this is in fact the encapsulation of the entire scientific method. Hypothesis, there's got to be a better way. Annul hypothesis, there's not. Testing and finding out are there better ways to come down a flight of steps as opposed to having your head bang on every stair.

So what I want to do in the next 30 minutes is tell you about the horrendous migraines that I've gotten from coming down the stairs headfirst in Africa and then some ways of how I figured out how to come down stairs in a better way. First I'd like to change -- as Bill said -- change semantics. The US government and the US military does not operate anti-terrorism missions. They run counter-terrorism missions. I think we need to change the semantics and in the bait and poaching world, everyone's against poaching -- anti-bad.

What we need to do is say we're looking at counter-poaching which means developing active measures that address the problem in a proactive context. So let's think about this and just change the semantics for this - the date today. Let's start with the science of this. We have a physics and economic problem. The physics part is what I do with how I model things. You're looking at tremendous amounts of space and I think most people have no idea how big Africa is.

You have to monitor a certain amount of territory 24/7. Numerous moving targets -- in Baghdad they were terrorists here they're animals. Multiple

adversaries, poachers, criminal syndicates who might not be looking for animals. They might be stealing plants, trying to catch live animals.

Hungry people who are putting out - going after the bush meat - something which I don't think we talk enough about and all this is compounded by what I think is the stench of endemic corruption which permeates every level of society that I deal with in Africa. So that's the picture -- you have a box with moving pieces in it. How do you model that box and reduce the amount of time and space that you need to devote your resources to?

And here comes the economics question, and this goes to Miss Rhoad's question about how do you pick what you look for? We have very limited resources that respond, primarily rangers. I may have -- in a reserve -- eight to cover 300 square miles. How do you determine where to send them on any given night? And that's very interesting and I talk to rangers and I'll tell you, where are they going to go? Well, tonight, I don't know, let's go this way. Why? Oh, we haven't been there in two weeks.

Okay, are there any rhinos there? Don't know. Ever have any dead animals there? Don't know. Well, why don't you go where the animals are? Well, because we have to go here. And I say, "Let's take a more systematic look at this and try to figure a way to use your rangers and your other resources in the most cost effective way." It's what you just asked -- it's resource allocation models of how do you determine space versus time with optimal resource challenges.

This is going to be on the test so I hope you're taking notes here. But let's take a quick look at what I think does not work. And this has come from eight years of working in Africa in a lot of different areas with people trying to stop poaching. Throwing money at the problem simply doesn't work. In 19- (sic)

2016 a very wealthy American investor gave Kruger \$23 million for counter-poaching activities.

In 2016 Kruger also received about \$27 million courtesy of the Dutch and Swedish national lotteries -- so about \$50 million. Fifty million dollars could go a long way in Africa. The question we should ask today after two years of \$50 million is there more or less poaching in Kruger? I can't get statistics from Kruger, they won't give them to me. They've become very coy about this. Now, I know a little bit about human nature.

If they have reduced poaching dramatically, (General Usdey) would be standing on top of the fire tower screaming about what a great job he had done reducing poaching. I don't see him screaming. Maybe he does scream, but I think he screams for other reasons. Throwing money at it doesn't work. I'm glad to be here in Atlanta this week, not at the Blu-ray Reserve where I do a lot of work in South Africa because this is the week all the American college interns come. Very well meaning, wonderful young people.

I say, I need you to sit in the tent and transcribe data. Well, I want to go out and catch poachers. Okay, but we'll do that later. But first we have to do the data because we have to find out where the poachers are. Africa becomes inundated with well-meaning but untrained and poorly equipped volunteers and they tend to gum up the system because someone's got to watch out for them -- to take care of them.

People have this belief that because it worked in Iraq and Afghanistan -- I'm not sure it did work there, but that's another issue -- the technology that we used there could be taken in toto and dropped in Africa. I have people offering me jet powered drones. I don't know where I'd get jet fuel from and I certainly

don't know how to land a jet powered drone at night in 40 knot winds with (unintelligible) back here in a room this big.

But here's the jet powered drone. Zeppelins, dirigibles, inflatables, every week I've got someone saying you should put up air ships over Africa. The parks aren't real happy about the, you know, people taking pictures and having an airship in the background. It sends the wrong message about that. It also delays the fact that where do I find 10,000 cubic feet of steam in (Anubia)? But based on that -- sensors -- I have boxes of sensors.

Gunshot detectors, all sorts of technology that was used in Afghanistan when there was 100,000 US troops to back it up and suddenly we're given this and we'll just put it outside Maasai Mara and you can track people walking across the ground. Well, what if they walk in with a herd of cattle? Well, you have a problem. Okay, you're sensor -- it's not such a good idea. We have high tech that is difficult to operate and very hard to maintain.

You can go into Rwanda and I'll show you a warehouse where there are probably 10,000 pairs of night vision goggles. Peter, do you know how to use night vision goggles? I don't like to wear them because they ruin your peripheral vision and in Africa sometimes something over here is very bad. They don't have batteries. We have 10,000 sets of these goggles -- very expensive goggles -- but they don't have the batteries to run them. And so they're sitting in a warehouse.

Then we have -- and I know I'll take some flack on this -- a lot of uncoordinated data collection. There's (unintelligible), Semtech (unintelligible), traffic, all sorts of data sets and these people collect immense amounts of data. And I ask them, "So now what are you going to do with it?" Write a paper. Good, okay. How do we use this data to better protect the

animals or aid in the rangers or make substantive environmental conclusions?

Well, I don't know -- we collect data.

We have a lot of money being spent on data which I guess is on a laptop somewhere. And then finally ignoring locals and failing to engage local communities in your efforts will doom you to failure from the start because these are people who have eyes and ears and they know what's going on more than I ever will.

The problem with high tech, I was the first person (unintelligible) Night in Africa looking for poachers. As I said we have all these different high tech things. They're very expensive. People are willing to donate drones. There's a very well-known reserve in Kenya that was given a Bell Ranger Jet Helicopter. And the lady who gave it has her name painted right across the helicopter. Lovely thing. If you want to see the helicopter, it's always sitting at the end of the runway because they don't have fuel or maintenance to fly. But they have a jet helicopter. All right?

People give money for stuff. They don't want to pay for daily maintenance. I don't need to talk to you people about this because you've been there. Everything in Africa that doesn't break will be stolen. That's a rule. It depends on what happens first.

I was telling people last night there was a big conservation group had three letters in it. Starts with W ends with F. I don't remember what it was. But they put a \$10,000 thermal camera on the road. I said why are you doing that? Well because the poachers are going to come down the road. Well don't you think they'll go that way? No, no. They're going to come down the road. Okay. How are you going to protect this camera? We got to figure it out. We got a second camera in the tree watching the \$10,000 camera. Smart. Next

morning what was there? Nothing. The tree and the camera is gone. They took the \$10,000 camera. The steel post, concrete and the fence was around it, it was gone. It doesn't work.

You can't solve African problems with American technologic solutions. It doesn't work. Lack of power and connectivity. People tell me all the time all we need is a 5G network and we'll be fine. Okay. That's good. You've all been there. You know the dust, the heat, the humidity, the rain. A lot of people who want to bury batteries or sensors. They want to bury them in the ground. I guess no one will find them since they're buried. You know that's smart. What happens when the monsoon of rain comes?

Untrained, ill-equipped, underpaid operators, a lot of the rangers many times are corrupt. That's a problem. And then lack of vehicles, slow response time. And one of the biggest challenges I'm always facing is lack of fuel. You may have the finest vehicles in the world but there's no gas to run these things.

So you start looking at this stuff and scratching your head and say well what does work? I need a rough generalization of these three very quickly and then do a little deeper dive into them.

Very highly trained rangers. And for this example I use the Black Mambas at the Balule Reserve in South Africa. Simple technology. (Unintelligible) in Zambia our next speaker (Peter) our next door neighbor there from that conservatory, he went out and bought \$50 Garmin trackers. We say put them on your belt, when you see an animal click it. When you come back at night, put the Garmin in the laptop which hopefully in the interim has powered up and tell me where you saw the rhino.

If you do that over a year, you don't need a lot of algorithms. You'll be able to look at a satellite image of a park and put colored push pins in and you will be able to take ten steps back and the patterns jump off the wall. You will see in a huge area of let's say 20 miles by 20 miles, clusters. Clusters by seasons, clusters by weather, clusters by when animals are mating, (unintelligible). And you can instinctively say as I said my time space issue, come here, not here.

I like to use satellite imagery and it's always fun to take this to rangers. Because here are people who have lived their whole life on a horizontal plane. And they drive around and they've never looked this way. And you give them an image -- not map but a satellite image of an area -- and it's very interesting to see how their mind works. They have to completely (unintelligible) rotate how they look at the world and say, well, the big rock's here, the Red River's here and the lodge is here. But they intuitively know that. And by using imagery as opposed as to just a plain paper map, they can see geographic features that when you put the push pins in that will say, wow, everyone all these poachers are coming into this region by a river. Why are we watching the roads? So we use these as learning tools.

Targeted patrol areas based on this. Some of you know Colonel (Dike) in Mozambique. We've worked with him now for four years on this. Targeted patrol areas, he's doing an excellent job there.

And then finally real and serious judicial response. This is a big problem. A very big problem. It's gotten better in Zambia. It's gotten very good in certain parts of Mozambique. It's not done very well in places such as Kenya where the poacher often times beats me out of the booking station after we bring him in for arrest.

So we try to do what works is I've gotten to the point where I don't worry so much about where the poachers are. I want to know where the animals are going to be. And that is how I do my target selection. I reduce that space to where the animals are and if there's going to be a poaching event that night it's probably going to be there. Because the people in the area have a pretty good - they've already done the mathematics and the algorithms because their fathers and grandfathers and grandfathers have been in this area and they know.

And so how then do we beat them at their game? Simple technology. I'm not saying all technology is bad. You have a G5 networks, a simple radio repeater. It works much better. Instead of Land Rovers and Cruisers and Jeeps, motorbikes. We're looking now at some electric bicycles. Mountain bikes that are electric powered. Maybe that's the answer in some areas to get the rangers to move more quickly. We geo tag every snare's that popped that is discovered because that gives you patterns of how animals move. The way animals move on certain trails when you find the snares. Why are the snares there? Because that's where the animals are.

Solar cameras that blink and move. This sort of a throwaway line that I put in there because I already said that you shouldn't be using all these fancy cameras. The solar powered cameras that I use I get for \$15 on eBay in South Africa. They're fake. But they have a little solar panel on top of the red light. They're motion activated. So we put a lot of these up in trees. We put a sign that says in the local dialect 24/7 video surveillance. For about three months, people will go away from that area and try to go into a park in another area. So I've moved them. I've changed their behavior and I've changed the movement where I want them to.

Sooner or later someone will go up there, climb the tree, break the camera and find out it's fake. To me that's a good thing. Because now we've changed the psychological calculus and they look at the cameras and go these are all fake. Wrong. Now we start bringing some real ones in. And we've changed the pattern again because they're imagining these are fake cameras, no one will see us. Boom. We get them that way.

Dragging the roads. You've probably seen this in reserves. Late in the afternoon, we drag the roads with an old set of tires, chains, carpets, logs so the next morning we can see where footprints are.

Something that I told the guards out here because I thought they had pretty snappy pants on here today at the Fish and Wildlife (unintelligible). I have found really cool uniforms and berets with an emblem on it can make a world of difference. Instead of guys going out in torn shorts and dirty boots and torn shirts, you get in these snappy uniforms with the (unintelligible) and some stars on there and a beret, it changes the way they think. For a few dollars, equip me a guy with just a good look can increase efficiency rates by many, many folds.

And finally the thing that I've sort of hammered on but it works. I went out and bought a bunch of breathalyzers. And this came about because one night we're going chasing some people through the bush and I realized that I had six guys standing behind me with loaded automatic weapons and they were all completely drunk. And I thought this is going to be a bump issue right here but it's going to be the bullets going into my head.

And so we started a program where before you go out on patrol, you blow into the breathalyzer. If it's not a zero, you don't go. You don't get paid. When you come back before you get paid, you blow in the breathalyzers. We did

that when people go out in the morning for their morning drives. We found a lot of guys were going two miles away, sitting under a tree and drinking beer all day. Well the breathalyzers have increased the efficiency rate a 1,000% because people are now coming - yes, they got a good uniform -- but they're sober. And people think that's sort of an odd way of doing things but that's the simple thing that sober rangers are better than drunk rangers. That is something I think we can agree on.

And now I don't think the breathalyzers even work anymore but it doesn't matter. Because in the morning when you say you're going to blow today, you're not, you are, these guys come to work and they're ready to go. And that's a dramatic change from what we've had in the past.

So here in some of the success we've had -- (Peter) can talk about these also -- this is what the (unintelligible) and (unintelligible) Conservatory in South (unintelligible), we're now engaged with the hunting community. The parks, the local chiefs -- you can talk about the chiefs so I don't get hammered for that. But three or four years ago, no one talked to anybody and there was this conflict. And it was these hunters over here doing this. And the hunters were these tourists are coming in to our hunting concession.

There was a lot of conflict. And what we decided to do was create regular discussions with all stakeholders. We've opened up the lines of dialogue. Now the daily fee is only \$15. But every tourist or hunter who comes in stays in this area, \$15 of their daily fees goes into a community fund. We just finished building a brand new school, a big sewing center that is going to put probably about 30 women to work sewing. The hunting concession had said we'll stay out of the tourist area. Tourists, please don't come trapezing into the hunting areas.

We gave our rangers Garmins, better radios and motorbikes and the real big deal is we bought a boat. Small boat with a (unintelligible). But that was the preferred mode of transportation of the poachers coming into this area. And prior to having the boat, our hands were tied behind our backs. Now we have a boat. I think we are changing again the psychological calculus of the poachers. They are not coming in by boat. They're trying to find other ways because we shut that avenue off.

But in the past 18 months, the rangers there have made 90 arrests, 57 people are currently serving terms between two and ten years, large fines. There are seven of those 90 still in the dock still waiting their trial. I think the most important variable I think is 30 rifles have been taken off the market. A lot of these were handmade guns. They're absolutely terrifying to look at. One was made out of an old bicycle. But it worked. It worked. And so by taking the rifles off the scene by definition you're removing a lot of the threat that you have there.

So we've talked to the locals there that keeping the animals alive means more money to them than having a Chinese syndicate come in, kill them and take them out. And so again simple technology.

One big problem in this area where it's human animal conflict you hear about this all the time. People get mad because the elephants trampled their gardens so they shoot the elephant. What we did is we're in the process of putting in 900 beehives. In case you want to know elephants hate bees. And if you don't believe get a DJI Phantom Rotor Drone. You know a little drone. People have the toys. Take that over an elephant. The pitch of a DJI Phantom is almost the same as a swarm of bees. So if you'd like to get an elephant to move, take the little rotor and put it over him and he will move. I'm not sure which direction he's going to go in. So that's a problem.

So what we're doing right now is I have three big bee hives that are being built that are going to be put near the gardens and I decided I would put big solar panels on top of the beehives. I don't think those solar panels will be stolen. I don't think people are going to climb on a hive with a 100,000 active bees and steal my solar panel. So that benefits - there are going to be thousands of kilograms of honey that are cropped. The villagers can charge their phone there. The elephants are out of the garden. That's a good thing.

We had to employ the bee-men last night. There are groups of folks who collect wild honey in Africa. They climb up trees at night with a burning stick and stick it in the hole and scoop out honey. It's more of the insane things I've seen in my life. I said if we put up all these bee hives up, we're going to put these guys out of work. So we hired the bee-men. And for \$35 a month now the bee men instead of climbing trees, they maintain the hives. If I had not hired them, I would have guessed the bee hives would have been destroyed the next day. We had to figure out a (unintelligible) way of taking one important opportunity away from them and give them another. I think the most important thing for me is that with the solar panels now we have lights for the kids to read at night.

And by the way the hives were all donating organic honey company. In Mozambique this is the area that (unintelligible) there's been no poaching in 18 months. The rangers under Colonel (Dike) have become very professionalized. We brought in a different kind of dogs. We brought in a tracker dog but these are dogs that track people.

We have a very small helicopter. Again, I'm not anti-technology. It's not a jet powered helicopter. It's a little helicopter that can take one person and a dog

and we can drop them in a hot zone where we think a poacher may be and let the dog go. The dogs will follow people for two days and get them.

We use the data driven deployment strategy. We've mapped animals every day. Over the past four and half years now we've collected probably around 2 million individual bits of information. And when you put that through the computer and put it up on a screen, I can tell you precisely how that reserve breathes. I use that on a (unintelligible). I know how everything in that reserve moves and breathes.

So if you'd like I have a technical paper here. It's 25 pages of mathematics. I can tell you where the rhino will be 48 hours from now. And I'll be right within 100 meters because we've learned the pattern of how it moves in (unintelligible). We defined psychological operations as the fake cameras and signs and we've also been doing a lot of false radio traffic that involves cell phones.

And finally the one thing that's really worked very well. We've had a very generous man in the Netherlands give us a pile of money and here's where money did work. We started a see something say something community tip line where people can call into the ranger station and say, you know, we just say this black car with four guys from (unintelligible) coming towards the reserve. They're headed towards Gate 19. Maybe you want to check them out. And the ranger say, (Paul), pick three numbers.

(Paul): 389.

Dr. Tom Snitch: That's your number, okay, 389. If we arrest these guys, you call back and say I'm 389. We'll pay \$50 or \$20 depending on the tip. If it's a gun, we'll pay you a \$1,000. And that would be either cash, food or other things. A lot of

people don't want the cash because then people know they dropped they snitched on somebody. I had to get that in. But it's worked. And so now we have an extra 2,000 pairs of eyes in this reserve who are outside the reserve and who are keeping an eye on it for us. And again they've learned the animals are worth more alive than dead.

One thing we did learn here and I was telling people last night at (unintelligible) they were very concerned about fire jumping in the reserve from outside and it's all fence. So we burn about the space of this building next to the fence. So the fire didn't jump and get in the reserve.

I was there one time and it was just after the rain. Where are all the first, newest, tenderest green shoots that come up after the rain? In the burn area. And so the rhinos were walking right into the burn areas which was 60 feet of the fence where there are people who are paid to sit all day to see if they can see a rhino coming to the fence. We decided why don't we just move the burn area a 100 yards to the left. Leave a (unintelligible) of vegetation that people can't see in and then do your burn. The fire will move 100 yards. But that probably more than anything made a big difference because the rhinos were all gravitating toward the fence and being shot through the fence.

Finally in Olifant's West if you ever get a chance to go up there and meet the Black Mambas, this is unbelievable. It's an all-woman professional ranger forest. They are they could put the US Marines to the test in terms of the (unintelligible). They never believed they'd have a job. And they get a month of training including animal identification, learning about how to geo tag, where snares are, very classy uniforms, daily walking patrol. They are unarmed. But they are a visible presence and deterrence in this area. They've collected now probably thousands of snares over these past couple of years.

The important thing with this I believe in the social (unintelligible) point of view is being engaged with the women and youth. Something the grizzled old rangers probably couldn't do or wouldn't do. And they are encouraging young women and girls who (unintelligible) there to think about getting involved in conservation. Now who knows what will happen two, five years down the road. But kids have been given an opportunity that they thought they would never have and to see women now decked out in a good uniform with their boots and they walk very crisply, it creates a sense of order. It creates a sense of deterrence. And I think it sends an example to young people there that maybe this is something I'd like to do. So I think the Black Mambas if anything they are one of the biggest successes out there. They're wonderful, wonderful hard-working women.

So in summary I would say if want to counter poaching you have to do so in resilience. Bouncing back and being stretched all the time, a multifaceted approach, (unintelligible), appropriate technology, trained rangers, time, place analytic solutions, rapid response capability. That's the key. I have people who tell me I have a drone that can fly a 100 miles. Okay. I can see a poacher a 100 miles away. Great. How fast can the rangers move at night? About 50 miles an hour. All right. In seven hours they can do the autopsy because that's when they'll get there. Rapid response. If you had already pre-programmed your rangers 95 miles out and fly a 100 that might make sense. (Unintelligible) the cash incentive I think. Something a lot of people in the (unintelligible) will beat me up on.

Hunting concessions as true partners. It's stupid not to do that. If you're in it for the long run, you've got to have a broad based community action plan and of course finally and this is something that's out of my per view and maybe the State Department could work in this here strength in judicial processes and

identify corruption in these countries because this is where a lot of the problems lie.

Let me just close by putting up a couple of ideas I had about the charge to your panel. And I take this not in any kind of (unintelligible) way. I'm a hunter but I hunt people. So it's a little different but. I was talking to some friends about coming down here this week and they said I don't know if you want to do that. That's probably not a good thing for a professor to come in with all these hunters. And he said why don't you Google Africa and good hunting story and see what Google comes up with. Not much.

I think one of the challenges here that the commission needs to face is how do you tell a better story about what you're contributing and what you're doing? The transparency issues we hear all the time that someone paid \$50,000 for a hunt. Where does that money go? Now people say, oh, well it goes to the village. It goes - I pretty much know where that 50,000 goes. I think if you could document and demand government accountability of saying how much goes to whom for what would be a great benefit to the way people look at hunting because then you could make the argument that, yes, there is a positive beneficial impact. Right now people say, oh, this guy paid \$50,000 to kill Cecil -- the lion. That's the lion a couple years ago. Where did that money go? I don't know.

But I think one of the things the commission could do is to go to these governments and say, yes, you have hunting programs but there's got to be transparency, accountability and documentation. I think you often put things in -- and this my suggestion -- a better perspective of numbers hunted versus poached. This year the average number you hear is 35,000 elephants will be poached this. About a 100 a day. How many elephants are hunted a year legally? Does anybody know?

Man 1: (Unintelligible).

Dr. Tom Snitch: A couple hundred. A couple hundred versus 35,000. Now I would make the (unintelligible) argument if you didn't do any hunting and you saved 200 elephants, statistically that doesn't make a bit of difference if you're killing 35,000 by poaching. I think that's the part of the perspective that you need to put the hunting equation in of, yes, you're taking old animals, males that are causing problems, ones that are no longer breeding. They're paying a lot of money. It's going to good things. But in the cosmic scheme of things 200 elephants versus 35,000 is not a rounding error. I think you need to do a better job of explaining that. Something I never hear about is the one ox or -- what I call the one ox -- meat for villages. It would be interesting to know of all the animals that were legally hunted last year, how many pounds of meat went to feed people in Africa?

Man 1: A lot.

Dr. Tom Snitch: A lot. A lot. You need to be a little more specific than a lot. You know, 100,000 pounds, a million -- I don't know.

Man 1: (Unintelligible).

Dr. Tom Snitch: Right. But no one knows that. No one ever talks about that.

Man 1: (Unintelligible).

Dr. Tom Snitch: Right. Because if people had meat, I would argue that that may diminish the amount of bush meat hunting. You wouldn't have to hunt bush meat if - yes, sir.

(Bill): (Unintelligible). Poaching, unarmed anti-poaching. They deliver meat 5,000 pounds a month. The local government keep track of every pound of it. There 450 rhino in that area in that conservancy. 400 of them are black rhino. I don't know if that's primarily the best.

Dr. Tom Snitch: You need to tell that story. And I would argue it's not being told.

(Bill): That is the best conservation story I've encounter on the (unintelligible).

Dr. Tom Snitch: (Unintelligible) (Brewster) introduced me to some folks from Namibia a couple years ago. Great guys who I went to visit up in Northern Namibia near (unintelligible). I think he had 2 million hectares that were fenced in. And he was up hunting the first part of the year and then tourist for part of the other. And we had a very nice discussion one night and he said I know people don't like hunting but the fees for the tourists taking photographs doesn't pay the bills.

Here's the question you need to ask your friends. Would you rather have this as a wild land or cattle farm? Because that's what's going to happen. We can't sustain ourselves financially as a hunting/tourist enterprise. Fine, I'll bring in 50,000 cattle. There are tremendous cattle issues in Pantinia right now, in Kenya, to moving the national parks. And people just say, well, I guess it's okay to raise cattle.

Well, if you raise cattle, there's a tradeoff. You're not going to have other species. And that's something that I don't think that again when people say you shouldn't hunt, well, okay, would you like a cattle farm there? Yes or no? So I think what you need to do is tell a serious, compelling and true story and you already have the evidence there -- the meat, the cattle farm.

And the question that I've always asked people is if you stop hunting today, absolutely stopped it, what would be the costs and what would be the benefits in the indigenous communities in those parts of Africa? I haven't seen a lot of good (unintelligible) studies that show what you contribute to the local economy. But let's just say it all goes away today. The school would shut down. The sewing center's not going to have power. You know you have these tertiary effects that trickle down and I think you need to tell that story. And I think as part of the charge of your commission is getting out and getting away from the histrionics and the, you know, ultimate soft pretzel. All right. Let's look at this as a bigger issue and a science issue.

And finally one other thing and it's because (Mr. Brewster) did this last week in Paraguay darting jaguars. Not only the hunting community offer as scientific research to be the ones that dart animals. Last week at Balule Reserve we had to dart three moms and three baby rhinos. That was very, very dangerous because mom with the baby nearby was a little bit skittish. She started going one direction and the baby started going in the other. We had some people there. They were vets. They weren't particularly good at a long range shoot with the anaphylactic. And there were some misses and there were some other things. That is the case - I would make the case that if I had (Mr. Brewster) or two other folks in this room, that would have been a much better cost effective and safer solution for you guys to dart these animals than giving the intern the gun and saying, okay, you got your shot, son. See if you can take this (unintelligible).

Man 1: (Unintelligible).

Dr. Tom Snitch: Only on Capitol Hill, sir. But that's all I have to say for right now. (Unintelligible). Thank you very much for your time. And I hope I have

some questions. If anyone would like that technical scientific paper, I'm happy to give it to you.

(Bill): Well, thought provoking presentation here. And I think a lot of your conclusions at the end are right on target. We've got to do a better job of explaining the options out there and all of us want wildlife and wild places to exist for many, many years. And then the question of how we get there and explaining the options to the public certainly should be a charge of our group and a charge of all of us in this community. So let's open it to questions.

Dr. Tom Snitch: We lost the narrative. That's the problem.

(Bill): Yes.

Dr. Tom Snitch: I think you let other people write the narrative for you and then - my grandfather used to tell me if you give the world a hammer something's going to get pounded. And so I think you need to take charge of the narrative and say yes.

People think hunter's want to kill everything.

(Bill): Yes.

Dr. Tom Snitch: They think if, oh, they hunt. They shoot everything. You've got to tell the story. No. Here are the benefits that we bring and tell a positive story. It's got to be true. Because the media will lie in wait for you to make a mistake and then they'll jump on you and then they'll hammer you with you.

(Bill): In a sports kind of narrative if you play defense all the time, you're going to get scored on.

Dr. Tom Snitch: Yes.

(Bill): So you have to play some offensive time to time.

Dr. Tom Snitch: I think you do.

(Bill): And (Paul) has his hand to ask a question SCI has kind of taken a lead of being some proactive stuff. So let's see that. (Paul).

(Paul): Dr. (Unintelligible).

Dr. Tom Snitch: If you say a doctor, someone's going to have a heart attack and I'm going to have do something.

(Paul): Great presentation. I really appreciate you being here. You're right. Someone is writing the narrative. We know of the data. We have the science. Serious calculation works. We just need to do a better job of telling the story and it's our fault.

I have to ask you. It sounds like most of your funding is coming from private individuals. How many is coming from hunters,, hunting concessions, hunting (unintelligible)? (Unintelligible).

Man 1: Not much.

(Paul): Not much?

Man 1: Not much.

Dr. Tom Snitch: I don't care where the money comes from. Okay? As long as it's legally raised. But I think that there are a lot of times people say, oh, we can't. They're holy than thou. We can't take money from a hunting concession. Why? Well because. Well, why? They're trying to protect the environment too. I think there is an inherent bias in a lot of American I'll use the general conservation organizations. You know conservation good, hunting bad. Therefore, if you take money from them for this, you'll get your (unintelligible). You'll sell out and give a pro-hunting - this is not a pro-hunting talk. This is a science talk about the way the world is, not the way (unintelligible).

You know I think if hunters would become more, again, demanding the transparency and say, yes, we are funding scientific research in these areas. Yes, we are funding village programs. I never hear of a hunting concession paying for a school. Maybe you do. Or a (unintelligible) or a new latrine.

Man 1: A lot of them.

(Bill): We spend millions.

Dr. Tom Snitch: And I never hear about it. And this is what I look at every day. I don't hear. And if I don't have it. If I don't hear it, I can guarantee you the public doesn't hear it either. And that's not to cast blame on anybody. But sometimes it's hard to get the media to write good stories, you know? Dog does not bite man doesn't make it on the front page. Okay?

Man 2: We get that all the time.

Dr. Tom Snitch: And I think that there's probably -- I don't know -- an inherent bias of, oh, yes, these hunters. They gave money for a school, (unintelligible). Right? So I

think you got to work to overcome that basis and say we have a long ways longer here. We're trying to do something for Africa. We understand we have to engage the community and this is how we're doing it. And people are still going to take shots at you but at least it's out there on the public docket.

(Paul): Would you accept a grant from SCI?

Dr. Tom Snitch: Sure.

(Paul): (Unintelligible).

(Bill): (Peter), you had a question?

(Peter Chipman): Now this goes back I go back to '73. And I remember when they stopped the elephant hunting in Kenya. They were going to save the elephants. They had a 120,000 elephants. They stopped the hunting and they killed 60,000 elephants in four years. That's when it started. You can't get this stuff reported. No one wants to report that. Hunters bad, no hunters good.

Dr. Tom Snitch: Well I don't think writing in Safari International magazine...

(Peter Chipman): No.

Dr. Tom Snitch: ...has necessarily the distribution that you might want. Is someone here from Huffington Post today? I thought they were coming and we could talk about that but.

I think you got to get - you got to quit talking to yourselves and talk to the mainstream media.

Man 1: We got to start working on it.

Dr. Tom Snitch: And it's hard.

Man 1: It is hard.

Dr. Tom Snitch: It's hard. But I can tell you what will happen if you don't do it, bump. You'll keep getting it. You'll keep coming down the steps banging your head. Guarantee it.

Yes, sir.

(Paul): (Unintelligible).

(Bill): (Thomas)?

(Thomas): The last question what would happen if something ended today. Most as you know most countries in Southern Africa, you know, somewhere about two-thirds and three-fourths of the wildlife habitat they did inside hunting concessions versus a third or a one-fourth inside national parks. The answer is very simple. If hunting ended today in those countries, two-thirds or 75% of wildlife population would disappear in a short period of time and they would become cattle farms.

Dr. Tom Snitch: Yes.

(Thomas): That is a clear, absolute, positive answer to that. And, you know, once the hunting community contributes in Africa versus the conversation groups in general.

Dr. Tom Snitch: And they are not mutually exclusive.

(Thomas): And they are not mutually exclusive and we need both. But in most countries the hunters supports about 75% of the habitat is a 100% supported by the hunter. But also in most cases almost all the budget for the national parks, the anti-poachers and the gang wranglers are also provided by the hunting (unintelligible).

We need to get more proactive in communicating if you end hunting today, you're going to terminate 75% of Africa's wildlife. If you don't believe so, look and see what happened in King.

Dr. Tom Snitch: That is completely untrue. If you stopped it today, we'd go back to biblical times and Garden of Eden and flourishing. That would be the argument.

(Thomas): Well, that's because they're idiots. And they're uninformed but they're loud spoken.

Dr. Tom Snitch: (Unintelligible) term.

(Thomas): No. They need to become completely informed and it's part of our job to help them.

That being said, hunting alone will not solve this problem in Africa. You know, we need we still have to have serious anti-poaching programs. Some of which you showed us today I had never seen before. That needs to be implemented across the continent. And it can be.

We also have to find ways to preserve the wildlife habitat in areas that are not hunting. You've pointed out Kruger National Park. There's no hunting at

Kruger National Park but think about the vast amount of resources it takes to try to control the poaching. We need a whole Marriott of weapons to save the wildlife. And hunting is one of those.

We do know this though. That if you remove hunting, you will remove 75% of the wildlife population. The other message we don't get out very well is, you know, in hunters as you said they take a very small amount of animals. They're always males. They're always old males. And a perfect example was the 35,000 elephants versus 200 by hunters. The 200 taken by hunters are the ones that kept it from 70,000 elephants poached.

But we've got to get out there and do a better job. And we've got to invite the conservation community to join us, not fight us.

Man 1: Yes. No.

(Thomas): You know I realize in many cases, it's a good fundraising tool but it doesn't effectively save the wildlife. And it needs to be a team effort to save them.

Dr. Tom Snitch: What I tried to show you - again I don't I can't tell you what will work. I can tell you a lot of things that I don't think works. What I tried to do is find simple technology solutions relatively inexpensive. They're not particularly difficult. (Unintelligible).

I wish I had a data set. They wanted to put a data collection operation in a certain reserve and they asked me if I would evaluate it. The quick easy start of manual for this data operation was double columned, single spaced, 80 pages. I couldn't figure it out.

(Peter), would your rangers do well with a 90 page instruction booklet written in technical English on how to input data into a system? Probably not.

But that's, you know, because, well, somebody gave us money to put this data system in. I can't figure this out. I'm a professor of computer science. I can't figure this thing out. And you're going to take it to folks in Africa and say just put it on your computer and figure it out. That's the problem.

I don't know how many of you have taken courses in economics but there's a theorem of Ockham's razor. Does anyone know that?

Woman 1: Yes.

Dr. Tom Snitch: From William of Ockham. A simple solution is usually the best. So what I tried to do is show you some simpler solutions as opposed to these grandiose \$50 million high technology (unintelligible) airships floating over Africa which just weren't going to work.

And I think part of your job also is maybe making that argument that technology for technology's sake does not solve the problem. And in many cases it creates more problems when you have it.

My drones - I'll be very honest. I thought drones would be a game changer for poaching. After five years of flying, I don't think that's the case. Because when you look through a drone, you look through a straw. And when you're flying over immense amount of territory at night with a heat seeking (unintelligible) camera, you can see this. You can't see this.

And so a drone to fly can fly. We have algorithms that say, okay, look through where the fence breaks. So if there's only two guys in a truck, drive

50 miles a day and burn up 60 liters of gas, we fly the drone. And it will tell you there's a break here or sometimes there's no break. So there's 16 hours of man time that you don't have to have driving, 60 liters of gas, the wear and tear and you have the drone works very well. Measuring water holes, it does very well. Looking if there's a smoky billowing cloud of smoke 30 miles out, it might make sense to send the drone out before you put ten guys in the truck because maybe someone burned the meat today and that's what wrong. Let the drone do it.

I thought the drone would be very good for anti-poaching. I'm a scientist. I tested it. I did a lot of work on it. I was wrong. Now in the future you might get better.

(Bill): Here's our order. We've got the director wants to ask a question.

Dr. Tom Snitch: Okay.

(Bill): (John) wants to ask a question. (Jennifer) wants to ask a question. And we hope to take a biological break shortly after that. So we would go that order. And if somebody else has a really perfect question, (unintelligible). Okay.

Director.

Man 3: Thank you, (Bill). Thank you, (Tom), for a great presentation. I want to talk for a moment.

You had a bullet point up there a moment ago about hunting versus poaching. In America here I had an opportunity for many years to supervise wildlife law enforcement officers both at a state and a federal level. We know from our contact sheets that typically about 98 1/2% of sportsmen, hunters, anglers in

the field are compliant with law. So you got 1 1/2% who don't follow rules. I would suspect that you could find that with any demographic and society of people who probably violate laws.

In America I don't think hunters are generally viewed within the country as poachers by society at large. But somehow there seems to be this perception that the minute that these hunters leave America or other places that and go to Africa or wherever that they're all poachers. So we're repeatedly seeing hunters viewed and maybe in other places as poaches. You spent a and I guess I would tend to believe that 98 1/2% of people are honest there just like they are here.

But I'm going to ask you having been to all these countries around Africa and other places of the world, chasing down poaches and others, what has been your experience in what you encountered as hunters out there breaking laws and maybe becoming aware of that through some of this poaching research?

Dr. Tom Snitch: (Unintelligible) level of activity. You have people in the field that are actually going out and taking out the animal. They're being driven by larger criminal syndicates -- Chinese, Japanese.

Man 2: They would be in the poacher category not the hunter category.

Dr. Tom Snitch: The poachers, yes.

Man 3: What are you seeing in the hunters who travel abroad, they go out with concession operators? Because occasionally we do hear of that small percent of hunters from America or wherever who go break a rule and it floods the media instantly. And I think our country believes soon as people go on an

airplane and land in a different country and you're poaching everything. And my question is have you seen that...

Dr. Tom Snitch: No.

Man 3: ...at all in those type of scenarios. Not that there's not an occasional lawbreaker.

Dr. Tom Snitch: I think there is an occasional issue. I think that there -- there are certain countries in the Middle East who send have hunting expeditions.

Man 3: Yes.

Dr. Tom Snitch: I've seen some of those. I don't think they're being conscientious hunters. With automatic weapons, they basically shoot at anything that moves. All right? So I think that's a demographic and a different nation. From the American point of view, I've never seen that. I've never run into a person who says, hey, let's go out and bag an elephant and not pay for it. Or let's go out and shoot something we're not - I don't see that.

But I think again it's a I don't know if you want to call it a public relations problem but when you see people tweeting, a young 15 year old girl tweeting with a bunch of animals and a rifle, that sends a message. Now you can package that in a different way but when people see that, they say, oh, well she just went and shot these animals. Unless you pay \$50,000 for them. That's not in the tweet. All right?

And so I think that maybe that ought to be the way you approach this. 99.9% of people behave. And so don't try to paint us with a brush for the .1% that don't.

(Bill): The media tends to lump all the poachers in with the hunters.

Man 2: Of course.

(Bill): They talk about the number of elephants that are chilled by hunters, they're talking about poachers.

Dr. Tom Snitch: I understand that. And that's where you have to go back to them and say 200, not 35,000.

(Bill): Right. The difficulty in the semantics in getting the media to understand if they truly want to understand and some of the NDOs that classify the poachers, the bush meat guys in with legal recreational hunters so.

Okay. (John)?

(John): By coincidence, I've been to these places that you have that have been discussed in the last two weeks. I have jet lag. But the (unintelligible), those are hunting operations working a partnership with anti-poaching strategy. That's (unintelligible). I'm familiar with that. How that builds schools for the community. Thousands of schools over the decades. Millions and millions and tens of millions of dollars on the ground in Africa.

Now it's a simple fact that there's a non-compliance. That's a high ticket area. And all the way down (unintelligible) is hunting areas. And hunting areas are far greater in size than the national park. Five times bigger. (Unintelligible) bigger than a national park. (Unintelligible).

Most wild habitats in Africa particularly in the (unintelligible) countries that (unintelligible). Hunting countries and most of the habitat is (unintelligible). Now those hunting areas, they have the most anti-poaching (unintelligible).

Dr. Tom Snitch: Of course.

(John): They have to. (Unintelligible). And it goes hand in hand with protecting the property and resources (unintelligible). We also note that (unintelligible) in most cases. And most of them (unintelligible). (Unintelligible) all this money there. And most of the money that the wildlife department gets, it goes to anti-poaching. (Unintelligible). So the operators also have their own anti-poaching operations. The (unintelligible) have theirs. (Unintelligible).

Dr. Tom Snitch: Is that a question?

(John): No. I'm saying I totally agree with what you say.

(Bill): I think that's lifting. But anyways (Jennifer).

Dr. Tom Snitch: You're the last one.

(Jennifer): Did you say that one group of women the Black?

Dr. Tom Snitch: The Black Mambas.

(Jennifer): They're not armed?

Dr. Tom Snitch: No.

(Jennifer): They're unarmed?

Dr. Tom Snitch: They're unarmed.

(Jennifer): At all times?

Dr. Tom Snitch: At all times. There is I think maybe it's a cultural thing. None of the men around there want to be giving their women guns.

(Jennifer): My other question is that the things that you talked about they were successful seem to bring about a bit of a shift in the culture and the view of respective of not only the wildlife but their interaction with the wildlife. And it's (unintelligible) in their society and their culture in the future of that society.

Dr. Tom Snitch: You have to convince them that the animals are worth something.

(Jennifer): How long does that take? That's a mean question. How long does that take (unintelligible)?

Dr. Tom Snitch: I don't answer speculative questions. In a period of five years I'd seen a dramatic change in how young girls in this area with the Black Mambas think. They had been given a role model. And they're learning about conservation schools. They are these women come off duty and they talk to their friends about, oh, we found snares today or (unintelligible).

I mean there is sort of a cascading type of knowledge that accrues over time that I can't predict what the timeline will be. But again are you better with it or without it. If women are 50% of the population, then they ought to be 50% part of the solution of some of these problems. And by getting these women involved and I can't say the joy when they get recruited a new class, (unintelligible). These women were just like I can't believe it. I'm going to be

a Black Mamba. I have a job. I'm going to be paid. People will look up to me. I thought I was going to spend the rest of my life sitting in a hut, you know, pounding (unintelligible) and hauling the water.

(Jennifer): I don't think you have to tell any of the women in here about the pride in a job well done.

Dr. Tom Snitch: No. But just saying in Africa where that is an anomaly.

(Jennifer): Yes. Yes.

Dr. Tom Snitch: To suddenly say now I got a shot. It changes the whole calculus of that. And suddenly I think when someone makes a phone call it might be a ten year old girl saying just so you know I saw a car driving towards the reserve today.

(Bill): He makes some great points there. And my friends in Africa tell me that the ladies are very respected and that it is doing quite a job as far as perceptions by young females in Africa.

We are four minutes past the time to begin the biological break. Is there another question that needs to come before Dr. (unintelligible) at this time or shall we take a break?

Man 4: One minute. The question is...

(Bill): 30 seconds.

Man 4: (Unintelligible).

(Bill): Okay. We got some logistics for (Doug) to talk about here.

(Doug): So you have a temporary access card in your lanyard. You don't have to be rescreened if (unintelligible). If you have a visitor access card, you'll need to be rescreened as you come back in. The bathrooms are in the elevator area. And then for council members, there's some coffee in the break room over here if interested in.

(Bill): Let me make one more comment if I could, (Doug). Because we have a fairly small audience here today if there's someone that would like to comment during the public comment period at the end that is not signed up, if they choose to sign up between now and the lunch break, we will give them the opportunity to make a short public comment. If there's someone in the audience that is in that category, (Doug) is the person to talk with. Okay?

Thank you. Let's take a short break. Let's be back in 15 minutes.

((Crosstalk))

(Bill): That's it. Anyway our next presenter is (Peter Chipman). (Peter Chipman) is a professional hunter from Zambia and has operated in Tanzania as well. Has had a concession in Tanzania a number of years but has about 30 years in the business in Zambia and we asked him to come make a presentation on just what all is involved in a professional hunter in working with the communities. Many people are employed. What they do and everything about the aspects of being a professional hunter and what it means to the community for food, for employment, for all those things?

We had the privilege of hunting with (Peter) some years ago. I could tell you he runs one of the most professional operations that I've been in. And my wife and the young lady that was with us at the end, his trackers,

(unintelligible) everything sang to everyone. And my wife and (Wendy) were both crying not wanting to leave. They wanted to stay another day.

So anyway (Peter) has a great operation. And let's hear what you have to say, (Peter).

(Peter Chipman): Thank you, Mr. Chairman. Council, we would really like to thank you for inviting me to this special occasion. (Unintelligible). I'm going to give you a perspective of safari hunting in Zambia, benefits of international hunting to preservation of wildlife in Zambia.

Zambia recognizes the benefits of both consumptive and non-consumptive tourism to natural resource management and the potential that both can contribute to the national economy. The national policy therefore develops consumptive tourism meaning hunting in (unintelligible) areas and non-consumptive tourism means photographic and national park.

The approach is that tourism is be (unintelligible) and regulated by government but driven by private sector. The strategy of government therefore is to develop (unintelligible) investments and make sure that the environment is conducive for the private sector to (unintelligible) in this business but in a sustainable matter. The principle focus is to improve the livelihoods of (unintelligible) communities by ensuring that participation and conservation and benefits shared. The public and local communities of the (unintelligible) develops a (unintelligible) tourism.

In GMA in management areas, natural resources are managed in conjunction with local communities who are organized through Community Resource Boards. The community resource boards are legally recognized entities under the Wildlife Act Number 14 of 2015 and constitutes a chief, chairperson,

secretary, treasurer who are elected from the community. The chief of the area is the patron of the CRB. The CRB have subcommittees which oversee different aspects of the communities and their relations to management and natural resource and management benefits occurred from them. Benefits occurred from hunting wildlife in this area (unintelligible).

Man 2: (Unintelligible).

(Bill): I thought you had a handout that was going to come to everyone?

(Peter Chipman): Yes. (Unintelligible).

(Bill): Okay. Can we get him to copy it and get it out to everyone as you talk so we can go along with it?

Man 5: Here you are. You can share. I can get copies made (unintelligible).

(Bill): That'd be great. (Unintelligible) can share on one and then you can get some copies made. Sorry to interrupt you.

(Peter Chipman): No problem.

(Bill): But that will make it much easier for everybody to know what's going on.

Woman 1: We have one.

(Bill): Oh, you got one there? I could download it if you want to, (Steve).

(Steve): (Unintelligible) and (Olivia) maybe.

((Crosstalk))

(Bill): They'll get some more made. Sorry to interrupt you. Go ahead.

(Peter Chipman): Benefits occurred from hunting of wildlife (unintelligible). And from the community share the CRB is expected to (unintelligible) enforcement of wildlife protection. The (unintelligible) of this (unintelligible) is handled from the hunting chairs.

The principles are the communities that protect and manage (unintelligible) have more animals and in turn raise more revenue that goes to improve their livelihoods. It is expected and hoped that communities would link the congressional wildlife to a true livelihood and its (unintelligible).

Traditionally communities who do not conserve their resources well will have few animals and little from wildlife. In this way conservation of wildlife becomes the driver of the local economy. Therefore conservation of wildlife and related natural resources is expected to be self-driven.

This paper highlights the benefits of international hunting and conservation of wildlife in Zambia. Hunting concession. In Zambia there are 42 hunting areas -- prime area, secondary area, under stocked and depleted areas. This classification is based on species diversity and abundance.

No hunting takes place in under stocked or depleted areas. They are however available to (unintelligible) private sector (unintelligible) which allows the private sector to develop and make them sustainable and can be hunted later on.

Prime hunted areas. These are areas that have diverse and abundance animal species such as lions, leopards, buffalo, (unintelligible), elephants -- oh, sorry -- and sometimes elephants can be hunted.

Secondary hunted areas. Now those almost all the species found in prime areas but in less numbers and hunting therefore is with much (unintelligible).

Allocation of hunting areas to the private sector. Hunting areas are located throughout through concession agreement which are legally documents involving government, local communities and the (unintelligible). This type of arrangement runs from the number of the years of the agreement and it is possible for the management of the hunting block. The agreement specifies the role and responsibilities of each party. The (unintelligible) drives the process of ensuring the area is well protected and animals are secured for sport hunting.

Community obligations. Engage youth, (unintelligible), for the protection and management of wildlife in hunting blocks. Community members are expected to be vigilant about the protection of hunting blocks and (unintelligible) in accordance with the document provided that the general management plan of the GMA of the hunting blocks. Operates and supports the (unintelligible) in protecting the hunting area.

The hunting (unintelligible) obligation. Support government and local community in the enforcement of law of the law.

(Unintelligible) Community (unintelligible). Market the hunting block and the country internationally and organize hunts with clients. Support government and local community in the management of habitants. Engage the police (unintelligible) from the local community within the hunting

concession. Contribute to local communities for community members in the GMA. That's 50% of every animal that's hunted. Work with community and government to set quotas for the next hunting season.

The (unintelligible) obligation. Protect wildlife in the hunting concession. Provide rules and regulations that could make business operations run smoothly. Provide infrastructure roads, camps, (unintelligible) that will make it for operations and protecting and conducted safaris. Develop wildlife management plan and program that will ensure that the operation of the hunting blocks are conducted smoothly. Facilitate the export of trophies through the established international regulations as (unintelligible).

(Unintelligible). Facilitate the clearance of firearms to be used for hunting in the coming hunting season. Provide animal quotas promptly for hunting operation for not be affected. Conduct and search in the GMA and provide information to the (unintelligible) for (unintelligible) operations.

The market shares. Major countries are involved within the international legal hunting (unintelligible) in frequency and numbers. USA, UK, Italy, Germany, Spain, Canada, Portugal and a few other countries that are not mentioned. The USA is by far the largest of the market. The most preferred animal species are lion, leopard, elephant, buffalo, (unintelligible) and numerous (unintelligible).

The market shares are (unintelligible). As you can see this is only for four of the areas that we operate. As we say Zambia has 42 areas. These are the most popular areas. These are the typical four. And of the four 73% come from the US. The others are divided by most the European and other nations.

The sharing of revenue from hunting. In Zambia community based conservation and natural resources dates back to the late 1980's during the (unintelligible). When it was agreed communities of 35% of the revenue generated from (unintelligible) would be given to the communities. 65 will go to the government through the Department of National Park and Wildlife Services. These originals were later revised in 2002 to a 50-50 between community and government.

The communities share which is 50% will be split between the chief or the patron -- and he gets 5%. And 45% of the whole hundred is split as follows. 20% for the administration of the Community Resource Board, 25% for assault protection and 55% goes to community development projects.

The share that goes to government 50% is used for natural resource management in the wildlife estate as a whole. In effect any revenue that goes to government for natural resource management and the proportion of community contribution for natural assault production is 70.25 (unintelligible).

(Unintelligible) hunting. Hunting in Zambia is practice with a lot of caution. (Unintelligible) consequences of consumption will not replace them or recruitment of animal species. (Unintelligible) to make sure it's available from the (unintelligible). And these are maximum sustainable use in determining it's quarter which is the maximum number of animal that can be hunted without negatively affecting the viability of the population.

(Unintelligible) quarters below the rate of interest. Quarters are set far below the growth rate of (unintelligible) animal population are not only (unintelligible) but also can continue to grow. Some species like lions - sorry. Some species like leopards and elephants quarters (unintelligible). In Zambia

allocated a quarter 300 leopards per year and 18 elephants a year. Quarter in the viable population and the use of these quarters are far less than zero for the 1%. The animal quarters for lions in Zambia are 24 or 22 (unintelligible). In prime areas you can hunt up to a maximum of two lions per hunting area. Secondary area you can only hunt one lion. Excuse me. Lion aging is used for controlling quotas.

Management guidelines. None of the guidelines for lion and elephants. This regulates the hunting of the species. Zambia is in the process of establishing a guideline for letter of the law. Persistent research are monitored. Animal quotas are based on established animal population estimates which are determined through ground and aerial surveys. There is constant use in (unintelligible) for the monitoring of animal population. All the stakeholders - - which means government, communities and hunting concessions outfitters -- are involved in the monitoring of this animal population.

Benefits from legal international hunting. Number one Wildlife. Conserving is obtained by control in most remote areas where mass consumption will never take place in the next 20 years or more. The biggest value placed on (unintelligible). This brings about more care for the animal and their habitats. (Unintelligible) of animals like lions and leopards are reduced to a minimum as community learns to weigh the benefits. There is more tolerance of the animals. They reduce fortune in the area. Because of the whole ecosystem is conserved there is increased wildlife diversity due to integration and also increased abundance of the animals.

Number two Habitat Conservation. Animals habitats are conserved. That conservation is (unintelligible). Prior is more controls. Sometimes (unintelligible). Communities usually attempt to practice (unintelligible) for reason of domestic animals and also avoid destruction of habitat for the

animals. In Zambia there is like (unintelligible) there is now a community based prior management plan. The prior plan was developed with full participation of community members as they are the ones who (unintelligible). Land clearing is avoided in planned wildlife areas. (Unintelligible) wildlife areas are appointed by communities themselves. The conversation of habitats has more players in conservation -- the private sector, community and government. (Unintelligible) the fact is usually coming to aide government agencies for better result of conservation. Diversity is observed and they have to keep the ecosystem.

The local community. The local community benefits through (unintelligible) in the sector. The private sector includes more than 80% of their labor force from the local community within the hunting station. Communities also employed (unintelligible). More employment is created as local wildlife economy is (unintelligible) as they open shops, Euro trade, (unintelligible) and other projects. Development is induced (unintelligible).

As the private sector and government engages in the community to facilitate conservation and (unintelligible). In some other areas where government has failed to reach which is most cases of hunting (unintelligible). Commencement of constructed roads, clinics, schools and provided water for the common citizen. And all this is generated from the earnings they get from safari hunting. When nutrition is reduced, protein is provided. More than 50% of the meat that is hunted is distributed to the local community. Income is generated for communities of the local wildlife commonly is per use of animal product. Includes household income through (unintelligible) led to the improved livelihood of local people.

There is an exchange. Sorry. There's an exchange of culture and exposure to the outside world through exchange programs. Like there are a lot of

exchange programs between Zambia and Namibia countries in effort to cross ideas from community (unintelligible) legal international hunting.

It has increased community participation and conservation in planning and resource production. The Wildlife Act Number 14 of 2015 empowers communities to clear part of their areas which is an open area into categories for protected area. Communities outreach (unintelligible). This is category (unintelligible) protected area. Communities can publish resources sustainability as foreign exchange on their own without the involvement of governments. The conflict of (unintelligible) to manage wildlife and other natural resources of the community.

Wildlife trafficking. (Unintelligible) states of international trade of endangered species. (Unintelligible) failure to trade of species (unintelligible). It's primary focus is the (unintelligible). This is through unregulated trade. International trade is in life (unintelligible). (Unintelligible) of legal trade that could otherwise have been misunderstood and underestimated.

International hunting of (unintelligible) of the agreement. The (unintelligible) which is meant to bring about corporation among (unintelligible) legal trade. Members states of the Congo, Tanzania, Uganda and Kenya. Zambia has also (unintelligible) other countries which are not members of the (unintelligible) agreement thus (unintelligible) and illegal trade. Countries have also become vigilant about illicit trade making (unintelligible) of culprits who are involved in illegal trade of animal product among nations. International wildlife hunting has also led to the commission of an (unintelligible) -- which gathers the information on the countries of wildlife crimes.

Anti-poaching. Areas result in the natural wildlife trade. This is hunting operation. There's more poaching than those operations. These are in the (unintelligible) continuously. As examples there's quite a few in Zambia complex (unintelligible). Ten years ago these were prime hunting blocks. These areas requiring investment as soon as possible so that the negative trance can be erased. Legal international hunting benefits anti-poaching as 45% of the earned income from hunting is used for assault protection and other forms of wildlife management. The 50% that goes to government also goes for resource management.

The (unintelligible) is usually has provided Russians fuel. Most of the time (unintelligible) where they operate. This has led to increased anti-poaching patrols in GMAs. The principle therefore is that areas that produce more will receive even more resources for conservation and more benefits resulting in the improving livelihood for the local people. Therefore with good control, international hunting could be sustainable and (unintelligible) solid base for sustainable local economies. Communities should preserve their own resource and sustainability (unintelligible). Wildlife can be a driver of the local economy when international hunting is well regulated.

In closing I'll say it cannot be (unintelligible) international legal hunting of wildlife. There are tremendous benefits to the conservation of natural resource conservation. An ultimate and massive diversity. As has been mentioned before more than 70% of the revenue earned from international in Zambia is used for conservation. The share that goes to community goes a long way to building the conservation of (unintelligible). It encourages people to be tolerate with wildlife especially those that come into conflict with them. Without these benefits wildlife in most of these areas would be exterminated.

The success of hunting on the international playing field to be attractive to countries certain pieces are critical. (Unintelligible) elephants and certain (unintelligible) are key to (unintelligible). Central to the success of international is the marketing of what is hunted. Closing up of these markets for the animal species that come into conflict with human does not need to (unintelligible) but leads up to their extermination.

I thank you for that.

(Bill): (Peter), thanks for a very good presentation with a tremendous amount of data in it and your conclusion sums up your thoughts all the way through it I think quite well. I count quite a few of our council members would have some questions. If you have a mic on, could you walk around here where it's easier so you could see the questioner and they can see you.

But questions? (Olivia)?

(Olivia): I'd like to understand how you guys arrive at the decisions on quotas (unintelligible). (Unintelligible) have various game scouts out there doing research on populations or how do they arrive at those numbers?

(Peter Chipman): Most of the quota setting comes from the (unintelligible) because we have the most in the area. We cover most of the land that does that. We have a game stop that we have daily data. That is taken to the headquarters. The headquarters take it to the provision headquarters on that. They collaborate with (unintelligible) and come up with quotas in the area.

(Olivia): Okay. So there is a game scale alongside the (unintelligible).

(Peter Chipman): And we have quotas for every animal that is in the lower quarter. Every animal we make sure is recorded. The size, everything is recorded.

(Olivia): Great. Thanks.

Woman 2: So you referenced the (unintelligible). So is that what all this structure (unintelligible) in the revenue clearings?

(Peter Chipman): Yes, it's a law now. That was passed by our Parliament. So it's a law. Everything has to be done that way.

Woman 2: So it's only been operated this way since 2015?

(Peter Chipman): That's correct.

(Bill): The communities were getting revenue. (Unintelligible).

Woman 2: Otherwise you had had yours (unintelligible).

(Peter Chipman): Since 2002. In 2015 it became rule.

Woman 2: Okay.

(Bill): (Jeff)?

(Jeff): Mine may be more of a comment that it has a question at the end of it. You mentioned (unintelligible). And you and I talked. I used to have the safari company 20 some odd years old that had that concession area and I operated in that area and they were healthy populations (unintelligible). There were a lot of animals in there. And it was a great concession area and it's due East or

due West of (Unintelligible). And so we got a lot of pressure from poaching and things that would go on there. Not only were we running year round anti-poaching but we combated illegal forestry and other things that we would encounter close. And the area was a million plus acres at the time.

And based on what you told me it is that since that time things have gone downhill. It's no longer even considered a concession area anymore and there's been a lot of people that have moved in there. There's a lot of leopard in there. We had good luck with things in there. And to (Steve's) point, you know, what happens when the hunting pulls back, things start to go downhill quickly. And I don't know whether you can get those areas back again with folks moving in there and poaching and whatnot.

But it's just it's my own observation that having a presence there working with the community on anti-poaching, taking care of the local chiefs and things, the schools and things like that have a productive symbiotic relationship that worked for us, worked for the wildlife, worked for the communities. And I think our discussion tells me that unfortunately that is no longer the case. And I just hope that you're successful and can keep other areas from slipping into that direction.

So like I said more like a comment than a question.

Man 5: (Peter). (Peter), I spent about a decade in that area in (unintelligible) combined as one. And at the beginning part of that period of time, you know, game is clinical and advanced. And as time passed the Mozambique area got more and more encroachment, illegal encroachment, more and more poaching. It's a very accessible area surrounded by good roads. Until eventually the encroachment just took over all of Mozambique which was (unintelligible)

nonetheless. You know the problem with that is now you've got encroachment right next to Mozambique.

It's my understanding - well, it's not my understanding. I know this. When the minister unceremoniously stopped coming in Zambia in '13 and '14 and (unintelligible) west at that time, there was annual hunting quota developed which actually just been replaced in two years. Two elephants, you know, mature male elephants per season. In the 90 days that she gave everyone the window to remove all your camps and get out of there, we found 19 dead elephants within walking distance of camp within the first 90 days within walking distance. Now this a million acre plus area. The answer I was given by the government in that two year window was that there was somewhere between 200 and 250 elephants poached in the area in that two year window. I do the math 100, 125 years with the quota. And when it happens, it happens like that. It's done and in many cases it's just not retrievable.

Now that they've reopened, you know, there are folks in there protecting it again. As I understand it means (unintelligible) is thriving again. Now that being said there probably aren't any elephants to speak of now and won't be for some time I would guess.

(Peter Chipman): It's definitely not like it used to be when you're there.

Man 5: Yes.

(Peter Chipman): And as we know elephant is not an animal that grows fast like that. It's presence is very important. And what I can add to what she was saying. (Unintelligible) we can locate those animals. (Unintelligible). And Tanzania is a country is a country that's going down very fast. I mean the same with (unintelligible) drive the animals would just be walking. Elephants would just

be working. Now all you see their back end of an elephant running. There's a world of pressure from the poaching.

Man 6: Do you have hunting concessions? Concessions in Tanzania?

(Peter Chipman): Yes, we have four hunting concessions.

Man 6: And what happened to those?

(Peter Chipman): We have to (unintelligible) lion and elephant. Tanzania most of those areas are remote and you cannot sell buffalo safari. So you need to hide them and species multiply them.

Man 6: All operators have withdrawn from operating in Tanzania because of the lack of imports.

(Peter Chipman): Last week there was an estimate of 87 hunting groups.

Man 6: The question I was going to make is that I used to be on the board of (unintelligible) for years and the USA ID funded a lot of it and WCS mainline conservation organization was administering that operation. (Unintelligible). (Dale Lewis), dear friend and partner in conservation. How do you compare the two? The (unintelligible) versus the new law administration? How is the community benefiting all this?

(Peter Chipman): The current policies are more beneficial for the communities because they are directly involved. When we start the season we have open meetings on how the resources are going to be distributed, the places that are going to be distributed. And at the end of the year, we have an evaluation meeting. But each party -- the government, the outfitter and the community -- see how the

resources were used. So everybody's questionable so they have transparency now.

Man 6: (Unintelligible).

(Peter Chipman): Yes. Yes.

Man 1: (Unintelligible) local benefits, wildlife law. And this sounds very, very familiar (unintelligible) what we had here in 15 states (unintelligible). This is the second largest (unintelligible) here in America. And I can imagine (unintelligible) were denied access to the American (unintelligible) what would happen to the system. And I know that you had I think 73% of your hunters were from America.

So the question (unintelligible) what this committee (unintelligible) is what should be the policy of the United States. So if it is the policy of the United States to deny (unintelligible) access to the American (unintelligible), what would happen to that (unintelligible) system for wildlife management?

(Peter): It will be (unintelligible) definitely could be extinct. Like extinct, yes. I mean a good example is what I mentioned in Tanzania. A lot of (unintelligible). You go to Tanzania now, you'll be shot because of what's happening. There's no value because we cannot import those animals. We cannot import them.

Man 2: (Peter), to move off of hunting for a minute, what are the other things that this committee could recommend? What are the other things that Department of Interior, U.S. Fish and Wildlife, State Department, what are the other things that need to be done supplement hunting? Hunting is the lion's share, pardon the pun, of the revenue. But I know there are other things. There's areas that need water projects, which would benefit the people but also benefit the

wildlife and obviously anti-poaching potential grants, that sort of thing. What are the things that you would say be effective?

(Peter): Probably organized funding (unintelligible). One example is one of the areas we have is (Mahunta), which is the (unintelligible) open area. It is considered (unintelligible). We got it for 25 year lease. We put six windmills in there with (unintelligible). Now, it's classified as a primary. It's probably more stable (unintelligible).

Man 2: So the water.

(Peter): What is needed just (unintelligible) and a little more pumping in the area and just looking after the area, and constant anti-poaching.

Man 2: (Terry)?

(Terry): Yes, I've led photographic safaris into Zambia. I know there's a fair amount of tourism from the eco-tour side. Do you have a strong cooperation between the hunting safaris and the other kinds of safaris, or is their conflict and what can be done to create more cooperation in mainstream conservation?

(Peter): There is conflict as we all know. Most of the photographic (unintelligible) very negative aspect on us, which is really untrue. But at the moment, especially after, like, (unintelligible) when the minister closed the hunting, those areas like in the national parks were it. Because most of the hunting areas in Zambia were the national parks. So we're a buffer zone. We protect the poachers before they even go into the photographic area.

So if there's no hunting, they're going to cross in there. So at the moment, we're actually working hand in hand with the photographic (unintelligible). And there is actually notice that without us, they're also at risk.

Man 4: (Unintelligible) nearly as many as some of the people, but I've been there 27 times in seven countries. It seems that most of the hunting areas are so remote that you would never have photographic in many of them. The ones that I can see having conflict are the ones that were adjacent to parks, those kinds of things.

But you hear people say, well, let's stop hunting in those remote areas and do photographic. My goodness, when you're 300 miles in the bush and no roads, there's never going to be photographic safaris or other income for those communities. Is there something that I'm missing here?

(Peter): For sure. For example, like Tanzania, Tanzania has got the remotest hunting areas. Like we had the (unintelligible). It was six hour drive at my (unintelligible) to get to the camp. I mean, the closest town was (Kibono), which was so far away and that's an area that's infested with Tsetse flies. There's no way photographic (unintelligible) go and take pictures where there's Tsetse flies biting them (unintelligible). (Unintelligible) the only answer for those areas, logistic and everything to put photographic they cannot work.

Man 2: Okay, let's see. We've got two hands up. I'm going to let the lady go first, (Paul).

Woman 1: (Unintelligible) talking about, you're talking about how it's going to effect the animals and the wildlife. You never talk about things like of how it affects the people and the jobs they lose, how much money, and opportunities, and

education is not going into the communities. Is that giant numbers, we aren't actually in there providing these opportunities for them to have jobs?

(Peter): It's a significant effect that will come onto there. I mean I'll give an example for (unintelligible) sector. We sponsor six village schools. We sponsor I think about four clinics. This is areas where the government cannot reach and without the hunting, those hospitals and schools would not be there. I mean the (unintelligible) that's coming, we have donations from clients as well that help the school, you are part of this. There's also hunting. As I said, these are areas that are remote. Government cannot control these. We're the only people that can facilitate these projects.

Woman 1: So if we're not there (unintelligible).

(Peter): That's it.

Man 2: (Paul)?

(Paul): (Unintelligible) the hunting (unintelligible) pulled our (unintelligible) nothing like (unintelligible). I know (unintelligible) hunting safari but on a photo safari (unintelligible).

(Peter): No, most of the money from the photographic goes to the central government and that's usually used for different projects because the community, you see the community is like in the area. They look upon us. They don't look at the government sites. So we are the only ones that are directly going to anti-poaching.

(Paul): I think most people don't realize it's the (unintelligible).

(Peter): No, no.

(Paul): In Tanzania (unintelligible). They can't (unintelligible).

(Peter): And most of these photographic areas are designated. The areas that are close to the cities more or less. There are very remote places where the underprivileged people are, that's only hunting (unintelligible). All these photographic areas are near cosmopolitan places, or not cosmopolitan, like...

(Paul): (Unintelligible).

(Peter): I'm sorry?

(Paul): (Unintelligible) population (unintelligible) population combined and it's a hunting (unintelligible) by hunters and it's all (unintelligible) lack of imports (unintelligible) elephants and (unintelligible) gone in 40 years, (unintelligible) community (unintelligible).

Man 4: There was (unintelligible) one point (unintelligible).

Man 3: It's not a case of Tanzania doing something that's causing the decimation of the wildlife. It's actually the U.S.

Woman 2: So that's the question I have. What would you like to see from us to help your hunting operation so that we can import these animals? What can we do to help?

(Peter): I think it is the importation of these animals, I mean we've got centers and we've done our population centers. And we've got an adequate that can

(unintelligible). So maybe it's in the importation of some of those animals and we can work with government as well, which was (unintelligible).

(Paul): You had a job (unintelligible) research?

(Peter): Yes, we do.

Man 2: (Terry)?

(Terry): One more thing. How do you ensure that your people that are sampling these data are getting accurate, and I'm talking about top level science. This is what our critics are recommending, our critics, I'm saying the critics. But are questioning the objectivity. And unless the hunting (unintelligible) have really good data, there's always going to be issues. So do you have ways of ensuring that that's the case?

And, I, intuitively, it made me wonder because the leopard quota seemed high to me, how you ensure that that's absolutely as level as you say it is. I'm not doubting you. I'm just saying that if the process isn't pretty transparent on the scientific side, there's always going to be questions.

(Peter): Our quota is not only done by government. It's done by international organizations as well. So everybody participates in it. And as you say, (unintelligible) everybody thinks there's no leopard. Most of the places leopards are, you cannot actually count them. What they actually count, they actually sometimes (unintelligible) it. Like most open areas, it's even (unintelligible) even aerial counters are not counted (unintelligible). So there's more leopards than we actually think.

(Terry): That's interesting. Thank you.

Man 5: (Unintelligible) while there's a study there, female leopards (unintelligible) everything else (unintelligible).

Man 6: (Unintelligible) mention that (unintelligible).

Man 7: (Unintelligible) all the countries with leopard (unintelligible) maybe seven of them I believe being reviewed to make sure that they're up to date and still (unintelligible). And so this is all we know that's going on and hunters are their own worst critics, of course. But the actual (unintelligible) is just a fraction of the quarter. It's just a massive number that can be taken.

(Peter): Like the quota is 300. I think we take 40% of that.

Man 2: Great. Thank you, (Peter). I have a question. In Zambia, probably like most countries of the world where you have your urban centers, your big cities, many of the people there probably, just like in America, don't think a whole lot about wildlife. What they probably have their eyes on, and I'm not certain, is expanding development of the country and the population out into these rural areas that you're occupying and more familiar with.

Are you starting to see impacts of growth, and farming, and roads, and new communities in some of these rural areas and do you feel like that too is beginning to be a threat to some of these wildlife populations?

(Peter): Yes, it's slowly coming in with us now with technology and the road infrastructure coming into the hunting positions, more development in there. But it's slowly coming in. We are a little bit lucky. We're a country of only 15 million people and I would say three quarters of the country is still

(unintelligible). So at the moment, we're still (unintelligible) but it's slowly coming in there.

Man 2: Thank you.

Man 8: (Peter), that was a great talk you gave. Really wonderful. Do you find that the Chinese are building a lot of roads in Zambia?

(Peter): Yes, they are. They're our second highest population (unintelligible).

Man 8: Do you find from your information that Chinese are building a lot of roads in a lot of places?

(Peter): Yes, they are and I'm not being biased but there is actually helped to increase (unintelligible).

Man 8: There's a lot of evidence that they're involved very heavily with the poaching problem in Africa.

(Peter): And a lot of them are being apprehended.

Man 1: Any other questions? Okay, next speaker (unintelligible). There will probably be some of them that have some (unintelligible) questions asked.

(Peter): Very welcome.

Man 1: (Unintelligible).

(Peter): Thank you very much. Thank you for inviting me.

Man 1: Okay. Next thing (unintelligible) break for lunch. Let's be back here about 10 to 1:00 (unintelligible) start at 1:00 (unintelligible).

(Peter): Was it good?

Man 1: (Unintelligible).

Man 3: I'm sorry I had talk to about the Chinese.

Man 1: Be back at (unintelligible) bathroom. So if you want to (unintelligible) bathroom (unintelligible).

((Crosstalk))

Man 4: I saw them in Kenya.

(Peter): You know that was with (timber) (unintelligible) finished, finished. Left for dead.

Man 4: I was trying to describe just a tract of wood. The ships were just (unintelligible). You go up in the mountains and it's very bad in Madagascar. They just cut the hillside down, load the logs down to the ocean, and there'd be Chinese ships there just picking the logs up and dumping them.

(Peter): And you see the problem, they're taking advantage of countries like Zambia because they know we need money. We're in debt. So they give the money and then (unintelligible).

((Crosstalk))

(Bill): So (unintelligible) start with (John Lucas) and (Terry Maple) is going to give us a little bit of a run down on (John Lucas).

(Terry Maple): Well, thank you, (Bill). It's a pleasure to introduce (John Lucas). (John), how long have we been friends? It's so long I can hardly even imagine.

(John Lucas): We met in 1976 I think.

Woman 1; Kindergarten.

(Terry Maple): That was a long time ago and (John) was working at WCS on (unintelligible) and I was doing research there on the sable antelope that they had that they were in a breeding group. And over the years, I've gotten to know (John) and his family. And when he went to White Oak, we used to visit him often. My daughter, who's a zookeeper now, was sort of initiated into the zookeeper fraternity when she was five years old. One of (John's) baby cheetahs nipped her. The cheetah bite was a great show and tell experience.

So (John) is a great wildlife biologist. He's built captive collections. The White Oak facility had a high degree of professionalism, brought a lot of people together. He's a real bridge builder and now, (John) and I find ourselves at the Jacksonville Zoo working together and it's been a distinct pleasure to have the opportunity to know him.

So know that his story of the work he's doing in Congo would be highly relevant to the discussions we're having. So here he is, (John Lucas).

(John Lucas): Thank you, (Terry). That's a good introduction. I was a little nervous at first coming here and knowing the charge of this counsel but I've heard some very encouraging words from many members of the committee today about looking

at conservation in all parts of the world that need it, whether there is trophy hunting, or sustainable use activities occurring there or not.

And just for the background, I'm also President of the National Rhino Foundation. And I'm fully aware of the importance of sustainable hunting and protecting habitat for rhinos. We work in Namibia, we work in Zimbabwe, and the work of the hunting concessions in protecting rhino habitats is critical to their survival. We understand that. We support that 100%.

But my passion is rhinos. But okapi, on the other side of the spectrum, live in the rainforest. Nobody ever sees them. Nobody knows what they are about, but they are the (unintelligible) species, one of the best and most diverse of the ecosystems on this planet.

So I just wanted to say that we're hearing a lot about countries, Zambia, that have very good programs of wildlife management. You could have trophy hunting, sable hunting, you could have tourism, you could have other things. But there's other places in Africa, as we all know, that are suffering from multiple challenges how to manage the resource and resource exploitation, wildlife trafficking is a real problem in these countries.

Business these places are very special and it seems to be that where you have the most problems, you have some of the most spectacular wildlife on this planet. So there's no coincidence in that. So DR Congo is one of these places. It's a place that is very dear. I went there in 1987 and just a few points on the (unintelligible). The lack of security in this country is so intense it prohibits any type of tourism. I don't know if you read after the two brave tourists were kidnapped in Virunga National Park, they closed all tourism in 2019 for the gorillas. And that was the only source of income in that country from wildlife was visiting those gorillas in Virunga. There is no other source of income

from wildlife now in that country. And what that's going to mean for Virunga National Park and other issues is really serious.

The levels of biodiversity are just really (unintelligible) about 40% of the species are only found in the Congo. And then there's rampant loss of habitat. We have this dysfunctional civil society. There's all kinds of ways that people just exploit resources in any way, shape, or form. And there's a lack of - what I find most discouraging today is a lack of national capabilities in the staff. In the '70s and '80s, a lot of African countries were sending their citizens to Michigan State, to Oxford, to a lot of other countries getting their education. These were well trained Africans that went back and ran these departments.

That's no longer allowed. They really can't even get a Visa out of these countries now. So we have this really void of trained people. So we have to find a better way of doing that. We'll talk about that in a minute. And the extreme poverty and lack of economic incentives really impede conservation efforts. People cannot think about conservation if they can't feed their family. If their kids are sick, you're not going to get a conservation message across.

But why is this place so special? It was Zaire, if you're not familiar. Before that, it was the Belgium Congo. It's one of the most spectacular places on earth. It's the most resource rich country in Africa, maybe in the world. Estimated \$24 trillion worth of minerals in the Eastern Highlands of DRC - \$24 trillion. It has the second largest river system on earth, the Amazon. It could power all of Africa. The hydroelectric potential of this country is phenomenal. It has 200 million hectares of available land, just spectacular.

It is the most bio-diverse country in Africa, has the highest number of mammals, birds, reptiles, butterflies. It is a diversity hot spot. Conservation International rates this one of the 17 mega diversity countries in the entire

world. You're flying over forest for hours, and hours, and hours. It contains 68% of the forest in Africa. 13% of the global volume of rainforest occur in this country.

If you're familiar with biodiversity, only 5% of the earth is rainforest and they contain over 50% of the species on this planet that we know of and probably plenty more than we know of. This is a closed canopy forest and this is where okapi live. And when I came here, there was no protected area for the okapi. Nobody knew about okapi. This is an animal that evolves to live in the rainforest. It's a forest giraffe, giraffe family. Has great sense of hearing, great sense of smell and they're quite big.

And I always ask myself, why are okapi so big. They're 600 to 800 pounds. They're very - most animals in the forest, you've got pygmies. People are small. The (unintelligible) are small. Well, if you try to walk through this forest and they have to go through and pick leaves all day long, unless you can push your way through you're not going to get through.

So when I go through there, if I don't have a pygmy with a machete in front of me, I'm not going anywhere and this is what happens. They just push their way through the vegetation. This is the first footage of an okapi feeding in the wild from one of our camera traps we set out in 2016. And this is when okapi eats about 110 different species of leaves. A lot of these leaves are toxic so they can only eat three or four leaves. They have to move onto another plant, another plant, because if they stay on one plant too long, they're going to get sick and they know this. They know which plants to browse on.

We talked a little bit about leopards. One of the highest density of leopards in Africa are found in the Ituri Forest where okapi live. This - okapi's biology is totally evolved to a point of leopard (unintelligible). The wrong are really

small when they're born, about 35 pounds. They go into a nest and they hide for two or three months. They only come out to nurse and go back and lay down. They don't defecate for 60 days. They bring no scent. The mother doesn't even go visit them. She's an infrasound like elephants do, below our hearing, to communicate time to nurse, time to go back.

So this calf grows very fast and it gets up fast. So the okapi live for about six million years. It's one of those oldest mammals in Africa, in the forest undiscovered from 1901 when Harry Johnstone described the skin from the Congo. He was covering Uganda and he described the okapi went to the Zoo outside of London. They described the okapi as a forest giraffe.

Because it was such an oddity, such a strange animal, striped like a zebra, the way it looked and everything, the Belgians monopolized the trade in this animal. They set up a breeding center in (Apulu) where our base is today and they sent the animals. The first animal went to Antwerp Zoo in 1919 but the first animal wasn't born in captivity until 1957. So a long time before they bred. Now, there's a pretty good stable population in zoos and they're one of our biggest allies for raising awareness about rainforest needs.

I went there because of okapi but I fell in love with the people. This is the Mbuti people, smallest people on earth, live in the forest alongside the okapi. And this is our base. It's on the banks of the - this our base right here. This is the (Apulu) River. That's the Trans-African Highway, a one lane dirt road that crosses East Africa. So you see it's a pretty rudimentary place.

This is okapi male. Only have the males have really called ossicone horns on top of the head. The females do not and the females are larger. The females are about 100 to 200 pounds heavier than the males. The okapi is important because it's been protected since 1933. It's a symbol of all the wildlife in the

protected area of this great bio-diverse country. This is the Institute in the Congo for the Conservation of Nature, like our national parks, U.S. Fish and Wildlife and USDA rolled into one. They're responsible for all wildlife and protect the areas in the Congo.

It's their symbol. Everybody in the Congo knows what an okapi is. Radio Okapi is the number one radio station, television, and internet news. Okapi Water, all your stamps, there's Okapi logistics, Okapi cigarettes. Any two year old kid in the Congo can tell you what an Okapi is because it is their national animal.

So it's very important, as you know, when you work in developing countries. You can't pick a species to rally around if the people on the ground don't care about it. Just because we care about it, they may not care about it. You're not going to make any headway with the local communities.

So in 1987, we started the project and we were working with the other partners and the government of Zaire at the time. The Okapi Wildlife Reserve was created. This is 13,700 square kilometers, 1.5 times the size of Yellowstone National Park. It's a UNESCO World Heritage site. Not only is it for the wildlife, it's also the home of the Mbuti pygmies. This is a cultural reserve because this is where these people live. They've lived in this reserve for about 40,000 years alongside okapi.

This is the highest density of chimpanzees, forest elephants, buffalo, bongo in all of DRC. It's really their mega-diversity hotspot for the whole country. It's also very unique. It's the highest density of primate species in all of Africa, 17 different species of primates. And so it's really one of the places where you can see almost every type of monkey there is in Africa and the apes. So here's the Mbutis. The males are about 4'8. The female is about 4'3. These are net

hunters. They string these nets. The guy with the dog is carrying his net. That's about maybe 200 yards long, that net. They'll string it between trees and the women and the children and dogs run the game towards the net. The men spin behind the net with their spear and as soon as an animal gets in the net, they spear it because they'll tear the net up and it takes them weeks to make the net. So they don't want anybody tearing up their net. So they work hard.

Big animals like okapi, forest buffalo, even the yellow-backed duiker go right through the net. It's only the small duikers that they catch in this net. So they'll do that hunting that way. So they've been doing this. What's fortunate in our area is they have a taboo against killing okapi and killing chimpanzees. So they think their forest ancestors live in these animals, so they respect them and they don't bother them so it's very important that way.

These are nomadic hunters. They just travel the forest setting up these (unintelligible) and they live off the land in that particular area. Somebody mentioned honey earlier. They all have their honey trees. Each village has a honey tree and if the honey is running that time, the bees, they just drop everything and leave, and they just go there to eat honey for weeks and weeks on end.

So one thing we work to is by protecting okapi, we also let this indigenous culture thrive. And we're talking about hunting from Westerners in Africa but there also is indigenous hunting we have to think about. These people live off the land by hunting animals and they've done this for thousands of years. And by preserving this habitat, they're able to maintain their lifestyle. They don't have to become alienated citizens. They're not though of really as equal citizens outside the forest. Inside the forest, they have their own world, but outside the forest, they are not treated well. They're abused by the other

communities. So being able to live their normal lifestyle and preserve this culture from going (unintelligible) time.

We have two main components of our project. We support the rangers responsible for protecting the reserve. We provide their base salary. We provide performance (unintelligible) patrol rations. We also provide communications and also healthcare for their families. So we provide everything they need. We have a performance based system where they only get paid based on snares, weapons, days in the field. So we really encourage them to be in the field so they get paid that way.

Getting around DRC is not easy. Roads are rainy throughout the rainy season of the year, plus poor infrastructure, overloaded logging trucks, collapsing (unintelligible). I was just there and I went by two places where the bridges had collapsed. And what's amazing, every time a bridge collapses, within two day there will be people made out of wood barges on one side transporting to the other side back and forth. Within two days, the whole community of moving, because it's going to take a year to fix the bridge so they set up this business and moving everything back and forth across the river. It's really amazing.

So our support for the range is really important because we get them in the field protecting the wildlife and the forest. This is - the only way to protect Okapi is to protect the forest. You're not going to see them. You're not going to maintain them. You don't have a tourist industry around them but basically, if there's trees and a healthy ecosystem, you'll have okapi.

We have satellite - we were talking about communications here but we have satellite phones we provide all the patrols. They're all GPS encoded and they send texts every half hour of where their location is in the forest and we could

track what's going on, if there's a poacher, if there's animals they say. They're texting these things all the time as they travel through the forest on patrols.

Just to give an idea of what they encounter, in 2017, they walked about 15,130 kilometers on foot. That's through really pretty rough terrain and they arrested poachers. And collecting snares is important because okapi are occasionally caught in snares. So removing snares protects okapi and other animals. We're fortunate that about 85% of our snares are on a rope and 15% are wire. The wire snares can grab anything so we don't have as high a predominance of wire snares like other parts of Africa, which are really detrimental to any type of wildlife.

So when I talked earlier, they walk about 800 kilometers before they see a glimpse of okapi. So every 800 kilometers. These animals are pretty dense. They only have like five square kilometer territories and good habitat there's lots of okapi there.

These are our women rangers. We have four we trained in 2015. We have another cadre of rangers being trained right now and we hope to have more women sign up. So these women are great. They stay down. They've been with us for three years now. They're doing a great job. Here, the women carry guns. They have to because the poachers and miners are heavily armed and the militias are heavily armed. So you have to be able to defend yourself.

So what is a conflict zone? Well, the conflict zone, people are fighting all the time. It's unfortunate in the Eastern DRC where we're located. 1997, when the Mobutu was overthrown by Laurent Kabila and Joseph Kabila came to power after he was assassinated, the war officially ended in 2003 but it really didn't. All these little militias were spawned, different allegiances to militias from Uganda, Rwanda, DRC. They're all operating in the mountains of DRC

and they're all living off the rich resource of (unintelligible) diamonds, gold, other minerals, and also ivory. So they sponsor themselves by exploiting the resources.

The forest elephants, different species. One of the issues with elephant ivory, it's denser than savannah ivory. It's more valuable. Has a higher value on the market. So there's a real pressure to poach elephants because in a forest elephant, it's a small tusk but they're (unintelligible) small tusk and this is how a lot of these militias fund their operation.

So walking, we have encountered an (unintelligible) average one okapi skin every two years. It's very rare. Okapi skin is on the markets and we check them, and so there's really no trade. We were talking earlier about (SITIS) and (SITIS) regulates trade and endangered species. Okapi is an endangered species but it's not traded. So it's not listed on (SITIS) even though it's an endangered species. That's kind of a conflict. If you want, you should protect all endangered species, whether it's traded or not because that's one of the issues we have is it's not a (SITIS) listed species. And so collecting the snare is a very important part of the ranger's work.

The main issue is mining. This is the gold area. There's lots of gold in this ground and it's like the California Gold Rush. If you have gold, people come, especially if they're impoverished. And so the habitat destruction is there but it's very limited considering the size of this huge area. You fly over, you can hardly see the gold mines because the area is so huge.

But the real problem is the villages that pop up to support the miners and these miners eat bush meat. So bush meat is really the issue of controlling them. So getting rid of miners really reduces bush meat. So we evacuated. Rangers' major goal is evacuating the mines. This is done peaceably. We

always work - we realize these miners are just trying to make a living to feed their kids. We know that this is what they're here for but they're not from the area. They're from very far away. So they're evacuated and pushed out of the reserve, and all their tools are confiscated.

So about 15,000 miners over the last couple years and we really, really noticed that we closed down the mines, how much the bush meat declined. We just finished a survey in the end of May and identified about 25 mines, and the rangers are now going to all those mines, closing them down. So we do two aerial surveys a year during the dry season and any mines that pop up, they go in and close them down.

In 2012, we had a series of attacks because a group of mine militia became very powerful and they wanted to control all the resources in the reserve. They attacked. They killed a number of people. We had okapi at our breeding station. They burned all facilities and that's all been rebuilt. And I just want to give a shout out to U.S. Fish and Wildlife Service because this is one of the big roles the U.S. Fish and Wildlife Service grants play is they invest in infrastructure for protected areas, which not many people fund.

So our grants from U.S. Fish and Wildlife Service have been unbelievably critical for rebuilding facilities for the rangers, have offices, have support units, and it's really important and they work in areas that's high bio-diversity. We have elephants there. So the African Elephant Fund supports us. We're in the Congo Basin. There's a fund for the Congo Basin. So we applied for grants from that.

So U.S. Fish and Wildlife Service, tremendously. U.S. Fish and Wildlife Services funds are rebuilding, this is a guard post we have at the entrance to the reserve and they rebuilt all the guard housing that was destroyed. And we

did the tourist facilities ourselves, but this the (Zumaluku) gate, the entrance to the reserve on the East. That's a new office going in. U.S. Fish and Wildlife Service are funding that and new immigration office. Every person on the reserve has their ID checked. It's checked three times on the Reserve and checked on the way out. We just didn't want any immigration people living in the reserve, so that's how we do it.

Because you have insecurity, you have unpredictable breaches, we had an attack on a mine last July near our station in (Apulu). This is a gold mine by (Pela) and four rangers were killed and a (unintelligible) were killed in an attack by a militia in July. And then in February, our truck was coming back from (Beni) which is the closest big town, about 250 kilometers away, and was attacked by militia, and six people were killed, and unfortunately, one of our educators was in the truck, one of our educators got killed. So it's really a sad day but it's the risk of being there.

Just a (unintelligible) story. I was just there in May and usually, I travel around with my staff by myself and I don't have an escort. But since the tourists were kidnapped in Virunga, the army got a little concerned and I had a truck of 14 rangers and soldiers in front of me, all heavily armed, and a truck behind me with 12 rangers. I felt like the President of the Congo was going through there when we were driving the reserve. I never had that before but they were a little nervous about after the bad press they got from those tourists being captured. And a female ranger was killed in that attack too. That's really sad, the female ranger in Virunga was killed during that attack in Virunga.

The other side of our project is basically the communities. This is a reserve, which means no people are moved out to create this reserve. 50,000 people live in and around this reserve. We have to deal with the communities. They

are the future of okapi conservation. If they don't feel they have value in this reserve, if they don't really feel that it's something they want to believe in, they will not be there. So we work with the communities. We have 15 educators. We have (agronomes). We have a lot of people working in the communities.

Being a reserve, it has different zonage and these zones were set with the community. The tan is the Mbuti sustainable hunting. Only the Mbuti can hunt in those areas. That's their hunting zones and then we have a central zone, which is just created, where no human activities are allowed in the middle. So the wildlife has a respite, and then we have agricultural zones. The very light colored blocks are agricultural zones where the communities can grow their own food.

And this is really the key is making sure they don't use slash and burn agricultural. So a lot of our programs are based around reaching these communities on very difficult roads. There's a number of communities we have to visit on a regular basis. We talk about protecting animals. We hand out posters.

There are a number of different studies that I don't know if people are aware of that a lot of people understand the difference between animals who are protected and not protected. Once they learn animals are protected, usually, the hunting of that animal goes way down. This has happened in Cameroon and Gabon where they just put posters of chimpanzees who are protected. The number of chimpanzees in the market went way down.

So people in Congo and (Lingala), their river language is one word for meat and one word for animal. It's the same word. (Negama) means animal. It means meat. These people have been eating bush meat their whole lives.

There's no distinction. So they have to be taught that there's certain things you can eat and certain things now that are protected for reasons. And usually, they're very high compliance rate once you educate people about this.

We work a number of schools. We provide school supplies and our educators visit the schools as often as possible, providing curriculum for the kids. In Africa, sport and soccer is very important. So we sponsor a lot of soccer teams. Young people, the teams are named okapi, and leopard, and elephant, and all these. And they play each other. And every time they play each other, you get a huge crowd. And this crowd is open to messages. So we use these for educational opportunities and the crowd come to watch soccer matches.

So these agricultural and forest zones are decided by the communities where they're located. They're marked clearly and I have to say we just found out first break in how many years. We found one farmer that went four hectares into a forest zone from the agricultural zone. That's the first break we've ever had in any of the agricultural zones since we started this project. Really amazing. The communities police themselves and this person was actually, we had to remove him from that area, but we just flew the area survey and it's the first time we saw that.

But what we do is provide people with tools to grow crops sustainably. This is an agro-forestry. The tall bushes here are the serin trees. They grow between the rows of the groups. They're nitrogen (unintelligible). They put nutrients back into the soil. Normally, in a rainforest, one or two years on the same spot, you have to move. The soil would be totally depleted of nutrients. This way, they can stay in the same spot about eight or nine years and only have to be (unintelligible) one or two years instead of 15 years. So it really increases and they'd rather do this than cut the rainforest. It's not easy cutting rainforest trees. They're removing them.

So in this way, the production of the crop (unintelligible) goes up about 25%. So it's a very important system. We have five nurseries that supply all kinds of trees and plants to the farmers for free and the children are very involved. We planted 450,000 trees and hopefully, this year, we just created another nursery. We have a plan, 70,000 trees this year we're looking to do. A lot of the kids plant the trees around the schools, around the villages. I've gone through villages the last trip where there used to be no shade and you go by now, there's shade trees and everybody is sitting underneath the shade trees talking. Before it was nothing, it was just sun beating down. It's about 10, 12 degrees hotter in the sun than it is inside the forest. You put some shade trees out, it's much more bearable conditions.

So women are a very important stakeholder group in Africa, as we've heard, but especially in the Congo. Here's a mother with ten kids. She has ten kids. She doesn't want to have ten kids but she needs ten kids to haul the water, get the firewood, to babysit, to take care of the garden, take care of the parents. So if she has ways of having money to pay for some of those services, she won't have as many kids.

So empowering women is very important. We have five women's groups around the reserve. We provide sewing machines and cloth and they make clothes for people. Everything there is custom made. They make all these special (Kanga) dresses for everybody and it's a very good business. A number of the groups have gotten the contracts for the school uniforms now, so they're making two uniforms per kid. They work together. Every Tuesday and Saturday for eight hours, they meet. They do their things. They're happy, they're wonderful. And also, they form community gardens. They work together to grow crops together and this way, they can be much more productive and sell the crops in the market.

Another big issue is healthcare. We've done surveys of the communities and the number one concern always comes out is healthcare. Before education, before food, it's healthcare. That's the number one thing. So these are rural clinics. We supply 20 rural clinics with just basic supplies on a regular basis.

The other issue is water source. About 90%, 95% of human diseases can be eliminated if you just have clean drinking water. And so this is a water source that's gone bad. You've got all this scummy, dirty water. The kids are playing in it. You see the water coming out of the spigot there. So women and girls get up at 4:00 in the morning to get in line to fill up their water jugs. They will be there for six or eight hours getting water. And then they can't go to school, they can't do anything else.

So working with the communities, rebuilding the water sources, cleaning them up, making them clean. And then you see the flow of the water here. That takes about three or four minutes to fill up a jerry can. So the women are there much shorter time and then they go home. So we on average about five to eight water sources a year we rebuild. We have a couple donors that support this activity and so we do that, which is very important.

We did eight last year and I think the estimate was 8,000 women and girls, their lives were made much better because of just doing eight water sources. So this is okapi habitat and this is an animal that there is no tourism for. We want to know how many okapi are there, what are we protecting. And so they're very difficult to see. A fleeting glimpse of okapi is very rare. You have to walk a lot of kilometers and be very quiet. Okapi are ungulates, herbivores. They leave a lot of sign but you need security to have people in the forest counting feces and looking for tracks, and we don't have that type of security where people can just walk through the forest unprotected by rangers.

So in 2016, we started bringing in some camera traps. I taught a team of really eager young people, ICCN and our staff, to monitor these different areas. So just in more than one place, you put camera traps out under heavy guard. But we haven't lost a camera trap yet. We work with the locals communities to respond - to monitor them.

So these are some of the first pictures that we have. This is a male and female together. The female has a 14-month gestation. She's in estrous for about 10 hours. The calf nurses - so a male wouldn't be with a female but once every two years. So there's not really an opportunity for them to get together so it's very important to see them together.

Here's an okapi with leopard stars on his back. The okapi - the leopard would leap on the okapi from behind and the okapi would put his head down and run through the underbrush to rub the leopard off its back. The small okapi don't stand a chance. That's why they stay hidden for so long, but the adults most of the time can rub a leopard off but they probably do get adults occasionally.

So this is a - that was a pregnant okapi feeding and this one should play, but this is the first picture of okapi calf in the wild and that was that female that's actually three months after this was taken. So that was about the normal time they hide in the next. They just left the nest now. You'll be able to see its face in a second here. That was the first time that okapi have been recorded in the wild, a baby.

There's lots of other animals in the forest using the same trail, lots of chimpanzees. There's about 5,000 Eastern chimpanzees in the reserve and smaller groups you see in the savannah but they're there. And then for the people, the ungulates, there's a bongo in the wild. Bongo and okapi share the

habitat. This is a western bongo. You have the eastern bongo in the Aberdare mountains in Kenya. This is the western bongo where the male doesn't get dark like eastern bongo.

And somebody was raiding our garden. All our pineapples went missing so we stuck a camera trap up and once we saw this guy, we said, you can have the pineapples. This is a big chimp here, big guy.

So the okapi has declined through lots of different stresses. Mainly it's due to the civil disorder and the non-functional government that doesn't have any resources to take care of its people or its resources. So the okapi, through deforestation, the population in the reserve has stayed pretty steady business the okapi ranged over the whole part of the Northeastern Congo has disappeared.

We had a meeting in 2013 and we had a representative for every site where okapi are found and it's lots of places they were absent. You can get an (MP4) syndrome in the Congo where the trees are still standing but the wildlife has been exploited so you have to be careful about the trees, and assume there's life below.

So the okapi was red listed endangered in 2013, which is really has helped us because a number of grants and funding opportunities are only available for endangered species and above. So it's allowed us to apply for other grants in different places in the world for okapi.

So working there for the last 31 years, the okapi is a symbol for this huge protected area. It allows a unique human culture to thrive. It also has a lot of other diverse pieces of wildlife that are very special to the biodiversity of this plant that are protected also. So we created - two years ago, we started World

Okapi Day. As you probably don't know, probably didn't even know about okapis before I did this talk, but not many people do know about okapi. (Jennifer) does because she's seen (unintelligible).

But we - and this has caught on really big in the zoos of the world and in the Congo. And we have special education things and the zoos around the world sponsor okapi day. And then last year, we had races in a number of different communities where we had boys and girls races, and the winners got their school fees paid per year and the communities really liked that. We had boys and girls, the top three spots, we paid their school fees for a year, and the parents, they all got backpacks. They all got posters. So we're going to do that again this year in October 18th, and we have a lot of sponsors really to hope we do about 15, 20 villages around the reserve.

So just some thoughts after thinking about this group and addressing it, what we're talking about. But really, the issue, political reality is the most important thing you have to deal with when dealing with conservation today. You could have all the grandiose ideas and thoughts you're going to save the planet and do everything. But what's the political situation, what are your opportunities to work under.

And part of what the U.S. government can do and needs to improve the transparency of these governments and how they report things, and how they handle their citizens and their wildlife. That's really important. NGOs do the work on the ground in most of these places, and U.S. Fish and Wildlife is a very valuable partner, a really supportive partner, always there to help when you really have a crisis. I've really found the U.S. Fish and Wildlife Service to be tremendously helpful.

We need to identify the pressures on the habitat and apply a community based. If you go in there and say, we're going to fix this without talking to the communities, you're going to get nowhere. They know what they need and how they can address these issues. When the communities are on your side, very little poachers can sneak in there. The miners can't sneak into the reserve because the communities - with cellphone service now, they can call into headquarters and just say, I just saw some people on the road that I didn't recognize, and they do that.

The support of the educational institutions. There's Makerere University in Uganda. There's a wildlife college in Tanzania. There's courses in South African Wildlife (unintelligible) in South Africa. There's a wildlife college, French speaking, in Cameroon. We have to support these institutions because they're producing the wildlife management of the future for these countries. Somebody has to manage this wildlife because it is their wildlife. It is their land. They have to have the built-in capacity to do this for themselves. We can't hold their hand forever or sometimes we're not going to want - they don't ask us to hold their hand. Meanwhile, mistakes are made. So I hope some of these grants could be made to go to these institutions.

And funding for wildlife conservation needs to fund the protection first. Because if you don't protect the habitat first, you're not going to have any opportunities for anything else you want to do because there won't be anything there. I run into a lot of hesitant donors that don't want to fund protection. They don't want to fund guys with guns. They don't want to fund weapons. We have a special budget line called field equipment. That means ammunition. We buy ammunition for the rangers. We can't say ammunition. We have to say field equipment because the donors get really concerned that you're going to be - but the idea is we cannot protect this place if the rangers

aren't armed. Their lives are in danger if they're not armed. So we really have to do that. And then the other things come forward.

So that's the end of my presentation, and again, I thank you for being - looking at a broader scope of conservation. Hunting and sustainable use has a role where you have a more organized society, but in places where the society is not organized, you have to have other approaches. Thank you.

I'll take any questions. Does anybody have questions?

Man 1: (John), (unintelligible) the international (unintelligible). I've never seen one (unintelligible).

(John Lucas): Good, I'm glad.

Man 1: (Unintelligible) knows very little about (unintelligible) except (unintelligible) and this (unintelligible) one thing that you mentioned along with (Peter) did (unintelligible) mention it, all of you talked about (unintelligible). We must have (unintelligible) for any (unintelligible) projects and that's the (unintelligible) picked up from all of (unintelligible).

(John Lucas): The idea about community is conservation is a long-term horizon and the communities are the future - the present and future. So if they're not involved, you've seen this, I've seen this. You've got NGO come in there. Everything is great. They leave and the whole thing just collapses in days, not even weeks. So if you don't community buy-in, on the ground, they can tide this over until other funding is available or they can take it on themselves and make something of it.

But if you don't involve them, I think we're just wasting a lot of donor's money if we don't invest in the people, the communities. And I think we - I didn't talk about policy but I'm going to Kinshasa in August. We have a very strong relationship with the government in Kinshasa. I'm totally apolitical. I don't pick any sides. I met with four vice presidents during the war. I met with different war leaders. I met with everybody. So I can't judge people and when we're caring about trying to have a future for their wildlife and their people.

I go in there, and we talk with the government. They listen to me because we've been there 31 years. We don't judge them. We say, you know, and that's important that if you're working in these countries that you realize it's their resources, their people, and you want to be their friend and ally. You want to help them but you have to give them good, honest advice. They do want good, honest advice and I just tell them what we're trying to do there and what we're trying to be. I met with a general not too long ago. I said you've got to step it up. You've got all these soldiers sitting around here doing nothing and you know what he said, nobody's ever asked me.

And within a month they had arrested, like, five or six poachers, closed down a poaching gang, had - they're on the run chasing a couple other guy's tail. And he says, look, thanks for asking. So again, not be afraid of these guys. Just ask them and they'll do something.

Woman 1: So thanks. This is one of my favorite stories about (unintelligible) significant (unintelligible) long-term (unintelligible) it's a marathon, not a sprint. But not (unintelligible) in the Congo, the okapi (unintelligible). This is not the thing that people (unintelligible). I mean there might be other...

(John Lucas): From the history, there was about 298, I think, tribes in the Congo when it was first settled. So a lot of distinct cultures and habits. So there are parts of the okapi range where okapi is a delicacy in that area. Where we are, it's a taboo against hunting them but in the southern part of the range near this town called (Batesendi), we've had - there was people who thought it was a delicacy.

The protection status doesn't help that much when you have such impoverished people in a black market economy and everything. One of the things we want to do is do some more DNA work in the markets and really what they do is they smoke their meat, just throw it in the fire and the smoke is black. All the meat in the market is black. You can't tell what it is. We really like to know what kind of meat is in the market. So I think this is where we run a little science, DNA testing on some of these markets.

But yes, there is some areas where they are eaten, but they are so secretive and so hard, and so much work. Fortunately, I haven't heard of, like bongo dogs would be a way to hunt okapi, you know, just like bongo, you know, you want to hunt bongo, you have dogs that will bay them up. Okapi would be probably the same thing. But there's not any use for real dogs. The pygmy dogs are just pretty nondescript and they bark. They're very small and tiny, couldn't hurt anything.

So I think there's not much hunting that we know of. There's no trade. We have - that's another good story is we had - there's a town called (Sero) up to the northwest and the mayor, our educators went up there, it's really far away from the reserve. Our educators were up there meeting with him. He said, well, I've got something for you. He went in the storeroom and he pulled out three okapi skins. We confiscated these in 1998, 2001, and 2007. We think they should go back to the reserve. We were just waiting for you to come visit us.

And we asked, well, where do you think these skins were going? He said, well, maybe they are going to CAR. We didn't know if they were going to CAR or not but there was some talk about Middle Eastern demand for okapi skins, but it's not really known. But I think we're lucky there's not a trade in that. Like you know if there's a monetary incentive, people will find a way to exploit it. There's no doubt in my mind, they would find a way to exploit it.

Man 3: I think at one point you showed that (unintelligible) 35,000 to 15,000.

(John Lucas): Estimate.

Man 3: (Unintelligible) a little bit of gold mining but you mentioned political instability might be driving that down. So not really sure, if we're not getting a lot of poaching and that sort of thing, what political - what's actually killing the animals?

(John Lucas): Definitely where there's bush meat trade, where there's no protection, this is the only protected area for okapi. So outside, they're protected as a national animal is protected. But in the wilds of the Congo, everything goes, eat everything. So I think that we feel - there's also a lot of slash and burn agriculture in a lot of the areas on fringes of forests. And that drives okapi, cannot live in slash and burn agricultural areas. They're displaced.

When we had the meeting, okapi had a pretty big range. So a lot of the data, when we were there in the middle '80s, late '80s, we estimated the population well over 50,000. I mean there was untouched forest. There was okapi. So a lot of that on the fringes of the range has really shrunken down. (Miko) National Park and okapi are the best two habitats for okapi. (Miko) is occupied by two rebel groups right now. Nobody can get in there and there's

no idea how the okapi are doing in that national park. So that's all we can go by but we're getting firsthand knowledge from people on the ground working these field sites and they said this is what they thought the okapi were looking like. That's how we got that number. And that was why it was classified as endangered.

Yes?

Man 5: Do you have any commercial trafficking, say, for example, (unintelligible) or anything that's non (unintelligible) coming in?

(John Lucas): Yes, it was just a confiscation, I think, about 125 pangolins not near us but outside about 200, 300 kilometers away that we knew about that were confiscated. African grey parrots, we get confiscated parrots, which we condition and release back to the wild on regular basis. It's really illegal to import or export 50 African grey parrots. Legally, you can export 50. So we had a fellow come through with 100, so we kept 50 and he kept 50 but we released the 50 back to the wild.

So parrots, pangolins, of course, bush meat for the markets is an issue.

Man 5: Was there coordination (unintelligible) regarding (unintelligible)?

(John Lucas): I think the U.S. embassy, I'm going to visit them when I'm in Kinshasa and talk to them. I really can't answer you offhand. I know that we were talking about the Chinese. The Chinese are in Congo building roads too. A lot of influence in Kinshasa. So we have to work about that.

The goal - what we're seeing here is the minerals are a much higher priority than wildlife in Congo. They have gold and diamonds (unintelligible). So the

smuggling and the work is going to be the mineral side. The money is not going to be the wildlife compared to what they could have in gold and diamonds. And so the Chinese are definitely involved in smuggling gold and diamonds out for sure.

The cooperation, like with ICCN, the government institution, is part of (SITIS), we just had a scare where a Chinese trader said they were going to export eight gorillas, ten chimps, some manatees, 11 okapi from the country, and then the international community reacted quite strongly. The Ministry of Environment had signed a letter with this wildlife trader saying he was working for two zoos in China. And this kind of shows you how good the network is today. The European zoos have a pretty strong connection with the Chinese zoos. They went right to the Chinese zoos and they said, that's not us. We didn't ask for this. We had nothing to do with this.

So it was just a trader just floating something out there (unintelligible) like that but I'm going to talk (unintelligible). In today's world, everybody's kind of connected and even what we're seeing, which (Carrie) can appreciate, the Chinese Zoo Association is getting much more, I think, global, and cooperative and not just trying to have animals. And they're trying to work through the system of the global zoos having captive bred animals. Because you can't trade a (SITIS) list appendix 1 wild caught animals. You can't trade them and they were trying to trade wild caught appendix 1 animals and so they were stopped.

So I was very encouraged by that at how it was stopped dead in its tracks.
Yes, sir?

Man 4: (Unintelligible) investment in this (unintelligible).

(John Lucas): The funding partners I have, I have a lot of donors. I've been doing this a long time, private donors, individuals. I'm part of the Wildlife Conservation Network in California so I raise money in California. I write grants to the U.S. Fish and Wildlife Service, a number of different foundations. I just got a grant from the Foundation Segre. They're in Switzerland and they're just by pure chance the founders two favorite animals are red pandas and okapi. So I was actually lucky on that one.

I do a lot of fundraising and a lot of talks, and write grants. It's a big deal. Again, U.S. Fish and Wildlife comes through funding things that it's hard to fund, office buildings, guard posts, support for rangers. A lot of people on the community side, the agro-forestry, the schools, that's really a little touchy feely. It's nice, great, but the tough hard work on the ground with the rangers is kind of hard to find money for sometimes.

Man 2: Questions? I have one more. It may not make a lot of sense but with \$24 trillion worth of estimated minerals there, has been there any discussion by the government of legalizing a small area to extract that, tax the heck out of it, and utilize it for this type of work, setting aside habitat permanently?

(John Lucas): What they do is they have legal mining (unintelligible) and the Chinese involved, Americans or Canadians, though. This huge mining, the biggest mining companies in the world are in there because, again, with cobalt for electric batteries being the real thing now, it's had like 90% of the uranium stock in the world. I mean it has - just the mines, the potential of this country phenomenal.

But unfortunately, they're charging the heck out of the mining companies, but the money is going into Kinshasa, into Kabila's family pockets. It's not being distributed to people and we see this as a problem. And he's trying - he was

supposed to step down December of 2016. He's supposed to have an election this December. We hope that it will go peaceful. We really need a peaceful transition of power and hopefully, we get a government that takes those resources, like you said, this could be the richest country in the world, by far richer than we think we are. They have more resources than we ever think of having.

They've got oil. They've got all these minerals. The Inga Dam outside of Kinshasa has 11 turbines. I think two are working and they're trying to fix some of these turbines. If they just fix half those turbines, they can power all of Southern Africa. Every bit of Southern Africa would be powered by this one dam. And it's just amazing.

And the investments were there. Then of course, you had nationalization of industries, which really hurt, and then you had war and insecurity. And then you have a lot countries not allowing their citizens to invest in this country because of the human rights record plus, the unpredictability of the process now. So hopefully, I've been talking to people in Kinshasa, and my people, and they feel - I see a pretty good hope in the people saying they feel this election could go well, everything could go well and things could move in the right direction.

Joseph Kabila, the President, has a twin sister. So everything is in her name. He's like, I don't have anything. She owns everything. She just built these gigantic communication towers in the middle of the okapi wild preserve, who could stop her, President of the sister - sister of the President, sorry. So that's why I mean we have a lot to get over, but the corruption is - the number one factor that the people in Congo have had enough is just pure corruption. There's no other factor.

And the aid agencies are there. European Union puts a lot of money in, the World Bank, the USAID. Everybody is trying to help this country because the last war, there were nine African countries involved. Nine African countries were in Congo fighting. You can imagine if this country just goes - the chaos it will create across Africa, which will impede so many supply chains of things that we need, and how about millions and millions of people's lives that are affected. I mean it's really serious. That's why it's so serious that I think the country - our country and one of them really realize how important this election is to have stability in this country.

Man 2: Very good. So in the area of - you've been going to that country it sounds like for close to 40 years, 30 to 40 years. What - even though there's a constant change of power, and all these wars and warlords, how does it look different now? Is it being deforested? Are there more values for wildlife? How does it look different and how does wildlife play into that?

(John Lucas): I think the population was around 30 million, 40 million in the late '80s. It's about 80 million to 90 million now. So you've doubled the population. So that definitely impacts. And then we see lots of areas that are cleared that weren't cleared, a lot of farms and agriculture. The mining is still pretty minor compared to what it could be.

I went to a mine in the north, which is a South African mine, which is like one of our mines, big open pit mine. It wasn't in the forest, a big open pit mine producing - but it was well organized, run by the South Africans, employing thousands of people. So there's some of that happening.

But basically, just the incremental growth. That's the scariest thing to me. I was just into a town called Nia-Nia when I was there. I haven't been there about four or five years but it was an insecure area when I went there. And I

saw so many kids I could not believe how many kids I saw. Then I'd say how could this area support so many people. So I went down to one of our agro-forestry spots and there was a water source nearby. And there, I found these three cavern wells of pure water bubbling out of the ground. And people were lined up getting their water, but they just would scoop and they'd fill.

And I said, do you ever run out of water? They said, no, when the people don't come at night, it overflows. So if you have a source of water like that in the middle of an impoverished - it just draws people. So again, they start farming and have to have business. So it was kind of scary to see and then I just saw - what's the future for these children. My real thing is what is the future for these children. That's really the scary part about Africa, all across Africa, what is the future of these children. They have to have something and we've seen some examples in Africa where you have empowerment of women, economic empowerment, especially of women, the family size decreases and you have a slower population growth. So you really have to - that's why we think empowerment of women is really important to try to get these populations, family size down and have opportunities.

They all go to school. They value education. The kids go to school every day. We have double sessions in our school, in our town morning and afternoon. They want education for the kids but the kids get this education, secondary school, they've got to have something to do with it. So hopefully, new leadership will come in and do something with it.

Man 2: Thanks for a great presentation. Okay, for the final presenters today, exploring successful management models, we have Clay Brewer, Conservation Director of the Wild Sheep Foundation, and Emelio Rangel, Board of Directors of Wild Sheep Foundation.

And I might mention another positive about these two is Clay Brewer is from Oklahoma.

Clay Brewer: Can you hear me okay?

Man 2: Yes.

((Crosstalk))

Clay Brewer: Well, we appreciate the opportunity to - appreciate the invitation and we appreciate the work that this committee does. I think that maybe taking on something a little easier like world peace might have been the thing to do. You guys certainly have your challenges ahead of you. But more importantly, we appreciate the opportunity to speak to you about the things we have going on in Mexico that is truly being accomplished through sustainable hunting. I work for the Wild Sheep Foundation and our purpose is to put and keep wild sheep on the mountain.

We are a conservation organization that's comprised of both hunters and non-hunters. So for us, the resource is our highest priority in every case. I get up in the morning, I sit the resource on the horizon, and I aim at it every day. There are, as this group knows, many distractions that will lead to side roads that go nowhere. So if you stay focused on the resource, which you have done for almost 30 years or over 30 years now, it typically leads you in the right place.

So despite what some may think, hunting is not our primary goal. For us that is a product of doing the right thing for the resource and it works. In fact, wild sheep harvest in the U.S. and Canada ranges from about 1.5% to 3.5% of the total population. So there's plenty of room for harvests. If we looked at

like some other huntable wildlife species, we could certainly increase that. So most jurisdictions are fairly conservative for a number of reasons. But make no mistake about it, the wild sheep conservation in North America is provided through sustainable hunting.

So for us, based on our experiences in the U.S. and Canada, sustainable use of natural resources is the only way to create reliable funding sources for conservation, to create a sense of value and ownership by citizens in their wildlife resources, and to institutionalize a conservation ethic in the people of a jurisdiction.

So much of what I present, that's the benefit of being last. You've heard from another speaker. Because we fit somewhere in the middle of every speaker you've heard today. And so - but once established, conservation of wildlife resources through sustainable hunting provides reliable funding.

So let's talk about Mexico. Mexico ranks in the top three countries in biodiversity. It's an important wildlife dispersal corridor...

Emelio Rangel: (Unintelligible) various agencies at the local and international levels (unintelligible) a landscape scale effort to restore and manage native wildlife habitat within Northern (unintelligible). A project known as Sierra del Carmen, began as a result of those efforts. The ranch encompassed a vast area where the Chihuahua Desert from the Rio Grande River (unintelligible) along the West Texas boundary and Southeast of (unintelligible) about 100 miles.

Desert Bighorn Sheep serve as the priority species for the project with initial efforts focused on raising desert (unintelligible) in captivity for the sole purpose of future release into the wild. Lambs born (unintelligible) boundary level in a (unintelligible) population continue to (unintelligible).

In 2010, the first Desert Bighorn Sheep permit for (unintelligible) was issued to Del Carmen by the Mexican government and the permit was (unintelligible) at the Wild Sheep Foundation (unintelligible). Funds (unintelligible) to hunting permits go directly back to wildlife and habitat projects. In addition to success with big horns, long horns, elk, mule (unintelligible), black bear and countless other wildlife species that had properly finished, they roam now in the (unintelligible) area.

(Unintelligible) has successfully restored and managed wildlife in a vast area that was (unintelligible). And another project, which is in Sonora, in (Sierra del Alamo), that's the family of (Mr. Raffi) that established (Sierra del Alamo) for the purpose of restoring the Desert Bighorn Sheep and other wildlife to the area. Mr. (Raffi) (unintelligible) from another property in 2017. This is one of the most recent projects in Mexico. He has developed and implemented comparative agreements with adjoining land owners to expand numbers and distribution of wild sheep as well as mule (unintelligible) and another wildlife species.

Habitat restoration in the form of water development, (unintelligible) other measures that are covered in progress in (Sierra del Alamo). Numbers have grown to a huntable level in the first legal desert (unintelligible) hunt in almost three decades, which was conducted in 2018. Like other private land owners, programs in Mexico, funding for the project is provided by American Hunter with every penny generated going back to wildlife restoration and management. (Mr. Raffi's) effort has resulted in restoring free ranging Desert Bighorn Sheep to an area that had been vacant for over 25 years.

Now, (unintelligible) that's in the state of Chihuahua, both states, Coahuila and Chihuahua didn't have any desert in the '60s. Now, they have about 2,000

both states. In Chihuahua, the (unintelligible) ranch, they have a project that they started in 1981 for the purpose of restoring Desert Bighorn Sheep with this historic habitat. Thousands of dollars have been spent on restoration and management. Today, Desert Bighorn Sheep numbers on the ranch have exceeded 400 animals and continue to expand.

Now, while the ranch is currently working with neighboring landowners, who currently (unintelligible) Desert Bighorn Sheep to other several habitats in the state of Chihuahua. La Hermosa is located in southeastern Coahuila. My family has owned the ranch for over 50 years. In 1994, we began purchasing and (unintelligible) neighboring ranches. Today, (La Palmosa) encompasses about 156 square miles of Chihuahuan desert with topography ranging from 4,200 to 8,600 feet in elevation.

In 1994, we started the restoration of native game and non-game in the Chihuahuan Desert of Coahuila and enhance and protect the biodiversity of native flora and fauna. Archeological evidence indicates that Desert Bighorn Sheep were present from the (Palmosa) (unintelligible) of years ago. However, Desert Bighorn Sheep were (excavated) from the state of Coahuila by the '70s because mainly of disease by goats, unregulated hunting, and other factors.

Desert Bighorn Sheep restoration began with 69 Desert Bighorns brought from Tiburon Island and released into the wild on (La Palmosa). A second release the following year with another 64 Desert Bighorns also brought from Tiburon Island. Today, (La Palmosa) supports well over 500 Desert Bighorn Sheep with numbers and distribution continuing to expand. We estimate that about one-third of the (San Marcos Santinos) range is currently occupied by Bighorn Sheep and we believe that there is room for many more.

Efforts to expand Desert Bighorn Sheep numbers and distribution are underway with the neighbors, mainly land owners and the (unintelligible). Thirty-two longhorns also were brought from New Mexico and there are programs between New Mexico estate and Old Mexico, and they were brought to (La Palmosa). Right now, we have at (La Palmosa) over 200 longhorns (unintelligible) the large population of longhorns in Mexico.

In addition to Desert Bighorn Sheep, whitetail deer, elk, quail, rabbit, and other native wildlife now of course in (La Palmosa). Beginning 2013, we harvested more than 40 lambs, which is well over 3% of our population. Every penny generated from the hunting program goes back into (La Palmosa) wildlife restoration and management program, and working with our neighbors. We have invested serious money and over 20 years of our lives bringing Desert Bighorns and other wildlife back to the mountains of Coahuila. We're very proud of what we have accomplished.

And you'll notice a common theme among these conservation success stories is hunting. Wildlife restoration and management is close to it and once you (unintelligible) these success stories just presented would not have been happening without happening and most important, the American hunter. Sustainable hunting is a very important tool in wildlife management in Mexico. And the American hunter is the most important main ingredient of all.

Now, I will turn back to Clay. Thank you very much and if you have any questions, I will try to answer them. Clay?

Clay Brewer: That concludes our presentation. We can answer any questions you might have.

Man 2: (Jennifer)?

(Jennifer): So on your (unintelligible), when you started deciding that you were going to do the restoration and repopulate the bighorns, who made those decisions about when to release those animals, when to put more there, how many to take, et cetera, for the population? Was that you that made that unilaterally? Was that in conjunction with another authority? How did you arrive at that decision?

Emelio Rangel: Well, of course, you need the federal government permit. However, member, in Mexico, we have not - we don't have any public land. We don't have national forests, range land, or whatever type of land. So everything is private. Either privately owned or by a ejido. A ejido is a system, is a commune, a group of people that the land was taken away from us from private owners and given to them so they can make a living out of the land. So everything is private, 51% is ejido; 49 is privately owned.

And the decision had to be, of course, with the permit of the federal government. And in this case, the - it's not the law, how do you say it, (unintelligible) about wildlife before the '90s, you could not own any tax for hunting. Everything was owned and managed by the government. And they recognized in the '90s that the owner of the land was the owner of the habitat. And the government decided, the congress did that the owners should manage the population that you have in your land.

So you'll be interested in taking care of your land, your habitat, and of course, your wildlife. So that gave us the opportunity to buy stock from people on Tiburon Island. They had surplus. People (unintelligible) island, they had a surplus and before they could not get it out of the island. So we bought it (unintelligible).

Clay Brewer: If I could add to that, some of the people who work on these ranches, like for example, CEMEX, they used to work for Texas Park and Wildlife and we provide training. We've done different things through the years to various landowners. I've spent my career working pretty closely with those landowners.

Man 2: (Terry)?

((Crosstalk))

(Terry Maple): CEMEX when you're talking about them, is that the - who I think they are, CEMEX, C-E-M-E-X?

Clay Brewer: Yes, the largest CEMEX company in the world.

(Terry Maple): Okay, right on. They've done a lot of work with CI, Conservation International, and you talked about the fact that you work with both hunters and non-hunters. So is it the case that in Mexico, you have a pretty good cooperation between conservation groups or hunting groups and corporations like CEMEX?

Clay Brewer: Oh, absolutely. And we have a lot of room for work with the non-hunting side of it, and that was part of the reason, kind of interesting how some of this started for me, anyway, was there was something that I wanted to do. I was familiar with it. It's an incredible, the habitat in Mexico. Prior to 9/11, we used to hike across the river, never really thought about it. I worked on the river and so we would have radio coverage (unintelligible) in Texas. So I would walk across the river and I did that once after 9/11 and a helicopter lands. And somebody tells me to come here, and so I did, and went over, and

he said, "What are you doing?" And I said, "Well, I was chasing sheep across the river." And he said, "Why?" And I tried to explain that and he said, "Well, listen, I don't care if you go over there but when you come back, I'm going to arrest you." And so that kind of stopped.

So through the years, we had to figure out how to work smarter and better because we could stand on our side of the river and I could see a radio collar that I couldn't retrieve. And so we pay for things together. We tag team surveys. It's cheaper that way and we're hunting the same resource in some areas. So we try to work together on that as well to be careful about our harvest. But yes, we're trying to expand that with other corporations. It's a challenge. But we have moved considerably in the last couple years anyway.

Man 3: So on that property, that 400,000 acres (unintelligible) wild sheep really don't coexist with domestic sheep or goats because of disease concerns. You made a family decision or a business decision to not do farming or domestic livestock on that property. So how did you weigh those two, that revenue you can get from hunting versus the revenue you can get from doing domestic grazing on that property?

Emelio Rangel: Well, that was a (unintelligible) decision to take out all the cattle. The (unintelligible) in Coahuila, many in Coahuila is goats. Monterrey demands a lot of baby goats for a main dish, cabrito. They eat about 500,000 cabritos a year. So every ejido, which they live in very poor conditions, they have goats. And our ranch didn't have goats but they had cows.

So the first thing we did was taking out all the cattle and of course, we didn't get the revenue from the cattle and we started working with the wildlife. That's why we, as we said, for us is very important. 99% of the hunters are Americans and as you know, there are very extensive tax and all that money

goes back 100% to the ranch and to (unintelligible) with the neighbors, because now you don't have the income of the cattle.

We hire about 23 people full-time all year round just to take of the property, and the water, so you also help the communities around (unintelligible). However you have to, how do you say, give up about the desert, which you all (unintelligible) is a very fragile ecosystem and if you have cattle you can very easily overgraze all those lands, what they were overgrazed – my family did overgraze the ranch from 1963 until 1994 until we took out the cattle and it took about 10 years before we start seeing some changes. So it's a lot of money. It's just a lot of money to have a (unintelligible).

(Bill): Might add to that, (Greg), (Emilio) has been such a good thing for the overall program because you know, historically the conversation side of it never really – you know, people didn't talk about, they didn't talk about what it did as a funding source, an overall funding source, and, you know, once he started the value of his hunting operation and hunting tags, the value expanded; it increased. And once that occurred my phone started running over and the (unintelligible) people lined up.

One of the examples that he mentioned was the landowner that had a high fence operation, did that for – it still exists for decades and I talked him into releasing those into the wild because there's more value in that in the fair chase side of it then there is behind high fence. And so it has paid off, but much of that is because of this man's example.

Man 1: So how could the funding revenue from the American (unintelligible)...

(Bill): Funding...

Man 1: ...what I mean, by that is if it's a matter of policy we wanted to stop American trophy hunters from hunting in Mexico and bringing their trophies back in the United States (unintelligible) adopted that policy. What would happen to your management program? I mean, if you send back to the wealthy country, they can pay, they can supplement that revenue or your family obviously has a large ranch or would you revert to cattle or goats? What would happen?

(Emilio): You would have to or you would have to have a lesser – much lesser effort in conservation because the lack of money. (Chermex) they have unlimited resources, the largest cement company in the world. However, (unintelligible) in Sonora and (unintelligible) and there are so many others that there are getting some money back from hunting in putting this back. That's what makes it possible. Otherwise keeping 23 people in staff and running all the – with the guard to property around for poaching, it's a lot of money involved, water development. I mean, we're talking about 100,000 acres of very rugged country, mountains that go from 4000 to 8000 feet in elevation just to bring water and have those water – how to say – water (catchment) is very difficult.

So if we don't have those revenues, most of those efforts will be very – how should I put it – reduced – very reduced efforts.

(Barbara): Is it (unintelligible)?

(Emilio): (Unintelligible)? No, because we have a lot of people just watching the land. They see that we're working with the (unintelligible). Again, the (unintelligible) they have probably – they have about six or seven (unintelligible) around our property. They range from anywhere from 60,000, 70,000 acres to 150,000 acres. Of course the current capacity of that land is

100 acres for one cattle, that's the current capacity. And if you exceed that you are going to ruin it and it won't come back for years and years.

(Bill): (Keith).

(Keith): We've heard from folks in Africa talking about how important hunter dollars are for the community. You talk about – you employ 23 people because of your hunting operation. How does that compare to how many people you'd employ if you were running cattle?

(Emilio): Three or four (unintelligible).

(Keith): So obviously exponentially you know, I mean, the help to the community with the number of jobs that you provide which – so my follow up is hunting becoming a growing industry in Mexico or not?

(Emilio): Well, I can talk about our experience. We never had more than three maybe four people at the ranch. I remember that when I was little going there, never more than three, four people. Now we have 23. However, they're getting like some of them they work as a guides, one works as the chair for the cook, and waiters and they all get good tips. They go back to the (helo) they are building their houses and like one of the guides, he makes probably \$7000, \$8000 just out of tips during the hunting season. I was talking to him last week and he's been guiding now for three or four years and he has a much better house, he even bought an (unintelligible) pickup. And everybody in his (helo) knows what he's doing and they all want to get into hunting.

We're working with them, and we're trying to convince – not only convince them to get rid of the goats but we need to find them something else – a revenue – before they can start hunting. They hunt in the property in the (helo)

maybe one or two ranch, they will have more income than all the goats together. However, that's going to take probably seven or eight years before they can start hunting. So we're working with them to see what can they do so we can do that transition between goat raising to hunting. But they know and they want to get into the sustainable hunting.

(Keith): My other question, what's the public perception of hunting in Mexico? Here in the United States we have a very vocal subset of our population that is just regardless of data, anti-hunting. And I was just curious of what the general population thinks of hunting in Mexico.

(Emilio): Well it's probably the same. We have the social media that shows – I put some hunting pictures here because I didn't want to hide it because that's – hunting is the most important management tool for conversation. Those are the ones, the hunters, who put their money, excuse my expression, but where their mouth is. And so the problem is lack of education. People see a picture with a bloody animal lying there and some guy with a smile on their face and a rifle, that doesn't give us good publicity, so it's the same.

We get a lot of bad reaction from some people. But when you sit down and talk to them, I have set down with the most radical groups, the Verde Party, and they are very against hunting, and after you explain them that we have harvest less than 3% and that I have to keep 97% - 97 sheep alive in the best quality of the habitat so I can harvest three or four rams and that's a sustainable harvest. And I do not only benefit the game animal but the non-game animals. And you explain all that, they understand. And after all, is also a harvest of organic meat and which now do you start understanding and making a lot of sense.

And they all complaint about what we eat when we eat beef, there are hormones and all of the things that they need to put on them. And so there's a lot of things that you need the chance to explain. And is not always the case. So we do get the same bad reactions.

(Bill): (Greg).

(Greg): So to follow up – because that was where my question was going to be – I think a lot of individuals would say well, fine, who cares if you grow some species of animals, big horn sheep, if they're just really there to be hunted, maybe nobody cares about that, if that's the only reason you have them. But could you talk more about the other species of wildlife that are benefitting? You said when the cattle went away the habitat started to come back over 10 years. What are some of the other wildlife that aren't hunted, aren't anything else, that are making that whole ecosystem a better natural place rather than just shooting three big horn sheep a year?

(Emilio): Every species of the Chihuahua Desert. Okay, the pronghorn, it is again a species, but we are not hunting the pronghorns in Mexico at all. We have a population of 200. They are dying of old age and we are not hunting them because we are just a conversation program and we are taking pronghorns from our property for different purposes. But if you go out in the property you'll see badgers, you'll see coyotes, black bears and even in that country you see black bears and of course quails and dogs and you see a lot of wildlife. If you go the (helos), the only species you're going to see is jack rabbits.

No, and that is for a simple reason, people in Mexico do not eat jack rabbits, they have the idea that they have worms and they cannot eat jack rabbits. So if you go to the (helo), that's all you're going to see. If you go out you'll see

foxes, (unintelligible), you'll see foxes and badgers often and coyotes, mountain lion, black bears and of course quail. And you'll see all kinds of non-game. We don't hunt anything else. And again, we don't have it – we don't have the desert (unintelligible) only to hunter.

As a matter of fact, when we started we never thought about hunting but then it was about the expenses, not so much, and then they were getting very old, 8, 9, 10, 12, even 12 years old. And the right thing to do was harvest and the right thing to do was selling those tags so we can put back the money. Since then we have grown in extension, we are helping the (helos), we are helping some other places, they can bring (unintelligible) big horns. So again, hunting is a management tool, that's what it is, it's a management tool. And I'm really grateful that we do have some people that is willing to pay those amount of money just to have the opportunity to (unintelligible) and have the opportunity to harvest a ram.

(Bill): Okay guys, thanks for the great presentation. And it's been very (unintelligible) for me. I think (unintelligible) for the entire Council and we appreciate you.

((Crosstalk))

(Bill): (Unintelligible) break here but before we do that, let's talk about after we come back we'll have public comments and then I would like to have the (unintelligible) come up to the front and we'll just talk with them a little bit about what they feel we should do to help make the status of (unintelligible) the world and is the state of conversation management programs, how we can make it better. So let's take a short break, about 10-15 minutes, (unintelligible) you need any housekeeping discussion or anything at this point or we just (unintelligible).

((Crosstalk))

(Bill): Okay.

((Crosstalk))

(Bill): I think there's a little...

((Crosstalk))

Anna Seidman: Well good afternoon, everyone. I'm Anna Seidman. I'm Director of Legal – Advocacy Resources and International Affairs with Safari Club International. And I just have three quick points that I would like to bring to your attention.

The first one relates to CITES, there's been some references today to CITES and I'm sure most of you are aware of the fact that in July there will be a CITES animals committee meeting, then in October there will be a CITES standing committee meeting, and then mid next year, 2019, will be the conference of the parties.

CITES and the decisions that are made at CITES obviously relate greatly to the decisions that you're making here and in fact your mission or purpose includes to review the Endangered Species Act for enlisted species and interaction with the conventions on international trade in endangered species of wild flora and fauna with the goal of eliminating regulatory duplication.

So I have two suggestions. One is to – for you to appoint or to designate a CITES taskforce to – for a limited number of individuals to focus specifically on what is coming with respect to CITES, what decisions will be made that

will affect hunters and hunting in the US and international hunting. And my second suggestion is that perhaps you could try to go a little bit beyond the specifics of that purpose that's mentioned in – that was mentioned for your work and instead of simply eliminating regulatory duplications, perhaps to also look at eliminating regulatory inconsistencies between CITES and the US regulations.

The second issue I wanted to bring to your attention quickly is – has to do with science that demonstrates the benefit of hunting. Today we saw some really wonderful presentations and I want to thank the presenters myself because I enjoyed them greatly and I learned a tremendous amount today.

But you don't always have to bring in new people, you don't have to reinvent the wheel because of the best science to demonstrate the benefits of hunting is already in some documentation from the IUCN. And I know many of you are aware of it, however, your personal knowledge doesn't suffice; you have to go farther in your ability to make recommendations to the Secretary of the Interior. You have to bring that information to his attention and to the Department of Interior's attention.

There have been some excellent papers coming out of CITES and I know that you've discussed them or mentioned them, but I would say that at the very least to bring those documents and discuss them at a meeting would be excellent because they focus on some of the greatest successes that hunting has already demonstrated for wildlife conversation.

And so my suggestion for a future item is to either bring the author, and if you can't bring the author of those documents then simply to make those documents part of your discussion and to go through what they say about hunting and what are the examples that they highlight that we should be

making part of common knowledge for all the public. We know about them, we know about those special examples but it's our duty right now to make that part of the general discussion for everyone.

Finally, I wanted to bring to your attention, and this is referencing the discussion that Dr. (Snitch) ended with, he talked about one of the questions that we should be asking and the questions we should be asking is, "What would happen if hunting was taken away from a particular country?" And in fact we are asking that question. I personally asked that question of several individuals from Africa when I had an opportunity to participate in their interviews at an event in Brussels.

Generally when we ask that question, the people we ask will we – conjecture, you know, we know what hunting means so we conjecture about what would happen if it's taken away. I wanted to bring to your attention an article that I found from the New York Times from 2015 and the title of the article is A Hunting Ban Saps a Village's Livelihood. And it's about the removal of hunting from Botswana. And it includes interviews with different villagers, in a particular village. And it actually references most of the things that we talk about when we conjecture what will happen if you lose hunting.

I will not read the whole article to you but I just wanted to bring one paragraph of it to your attention. This is a quote from one of the villagers, quote, "Before, when there was hunting we wanted to protect those animals because we knew we earned something out of them. Now, we don't benefit at all from the animal."

So there is evidence out there already that we should be capitalizing, we should be capturing in order to help you in your task of demonstrating to the Secretary what the importance of hunting is. And I would suggest that we try

to get more of that information from Botswana to help you in your task.

Thank you.

(Bill): Very good. Thank you. That's helping us, we do have one more (unintelligible) thinking they were RSVP-ing to the summit, (unintelligible) so, (Doug).

(Doug): (Unintelligible).

((Crosstalk))

(Barbara): Thank you. Thank you all for giving me the opportunity to address you and thank you for doing this meeting and for the great presentations that we had today. I was gratified that each of the presenters touched on points that I wanted to make and I'm happy to see I'm not the only one that was thinking along these lines.

We all know – we – those of you sitting at these tables and our desks, know the success of the North American conversation model and how it has funded conservation throughout North America and how everyone in this room has been able to enjoy the great outdoors and wildlife because of that model. And that model was funded or has been funded by hunters for decades. And we know that that model has been taken abroad and adapted in Africa and in Asia quite successfully.

Asia, the recent examples in Tajikistan is the hunting program there that has brought back markhor numbers and brought back (yoriel) numbers and an animal that is not hunted that also has made a comeback, snow leopard. Who doesn't want to see more snow leopards out in the wild? And that was funded strictly by hunting dollars.

But nobody knows about these great stories and that's where we fall down. People don't understand how the American model has worked. They don't understand how – and for the sake of the tape I'm making air quotes now – around the phrase “rich white hunters.” These are the trophy hunters that everybody disparagingly refers to, and these are the guys funding – sustainably funding year after year after year conversation programs throughout Africa, and throughout Asia.

Is it the only way to fund it? No. I'm glad that there are people who do things like they save some (unintelligible) and they have them in a conservancy, they have them in a sanctuary. That's great. I'm happy to see that. But that's not successful conservation. And that is what I would like to see this Council help people understand; successful conservation isn't about saving a few individual animals. It's not about saving a small group of animals. Successful conservation is about making an impact on an ecosystem. It's not saving one species to the detriment of 12 others in an ecosystem because one is overpopulated.

And it ruins an entire river (unintelligible) habitat where the bush buck and the water buck and other species live where one species is overpopulated in an area, not in the entire range, but in an area. And it has pushed down – and you know I'm talking about elephants, it has pushed down all the trees in that area so the rare birds that used to nest in those trees now no longer have a rookery there. That is not successful conservation. That is an ecological disaster. But people don't understand that.

Yes, we need to save elephants, we need to save rhinos, we need to save lions. These are species that we all care about. We want to see them thrive into the future across their native range, not just in a national park. That isn't real

conservation. That's, okay, this is a nice thing. That's wonderful, we need them. But real conservation is across areas. It's entire ecosystems. It's helping all the game that all the non-game species that thrive when we work to save the game species. That is real conservation. That is successful conservation.

And I think that's what we need to get the general public to understand that it's not just about one species and it's not just about one little place. We need to help people expand their understanding about what conservation is so that we can all work together. It shouldn't be non-hunters versus hunters; we should all be working together because we have the same goal: save wild places, save wild species across the world so that future generations can enjoy them.

If we fail to do that, if we fail to sustainably fund this conservation, because conservation costs a lot of money. We've heard that over and over and over again. We need a sustainable funding source that we can rely upon. Hunting has done that for years. If we fail that, if that disappears we will see all the habitat that we care about will disappear. Why? Because this is not the primordial Garden of Eden anymore. Every inch of this planet is under pressure to produce for human livelihood.

If we don't do that, if we don't find a way to make that balance we'll lose it all and the poor will be the human (unintelligible) for it. Thank you very much for your attention.

(Bill): Thank you very much for your comments. Just (unintelligible) and we want to be inclusive and (unintelligible).

(Barbara): Yes.

(Bill): And we can learn from everybody on all sides of the issues. And there are many commonalities (unintelligible).

(Barbara): Yes.

(Bill): We believe that we can hopefully (unintelligible) a lot of those together to make some solid recommendations to the Secretary and be very positive both for the people and for wildlife.

(Barbara): That's exactly what I hope to see. Thank you, (Bill).

(Bill): Thank you.

Man: (Barbara), any thoughts on what you think the most effective way is for us to (unintelligible) for us to do (unintelligible) save wildlife?

(Barbara): Well, I think we need to focus on what we have in common.

Man: Right now – right now (unintelligible).

(Barbara): Yes.

Man: But for me over here (unintelligible) conservation (unintelligible).

(Barbara): Yes, I understand that. There are however, many, many people who are in between the two extremes, who want to understand what it is that we do better and we need to communicate to those people. We need to help them understand how conservation works and what successful conservation is. We need to stop preaching to the choir and start talking to other people outside of our communities and communicating with them and giving them information,

sharing the success stories like this conservation program in Tajikistan, that is completely hunting-based.

Like the markhor program in Pakistan, completely hunting-based, and they've turned that around and they have many more markhor than they did before. But these are success stories that we need to do a better job of sharing with the world so that they can see how it works. So we need to create better relationships with the media, with other outlets to get information out there and to show them what successful conservation looks like.

Man: Agreed. Very good. Okay, thanks very much for your comments and thanks for everybody's comments. I think we've pretty much discussed about everything that there is to discuss and barring anybody else's thoughts, we will kind of suspend it here. We'll have a little Council discussion and then we'll adjourn afterwards, but anything needs to be brought before the Council at this time? Okay. I take a motion to...

((Crosstalk))

Man: Oh I'm sorry. My gosh, I am getting old. I totally forgot the panel. Let's get the panel up there. My goodness. I want to hear what they have to say. We got seats for them.

Woman: While they're coming in (unintelligible).

Man: Sure.

Woman: Can I do that because (unintelligible).

Man: Sure.

Woman: So while the panel gets up there I'd like to suggest something to the Council, and I guess maybe make a motion. I wonder if we could revisit the topic we talked about at the very end of our last meeting which was the (unintelligible) of the communications committee for the Council given that (unintelligible) of our charter indicates more effective communication and heightening public awareness. I don't know if anyone has any like comments to that or feeling about that or?

Man: I actually had thought we would just appoint it to the...

((Crosstalk))

Man: But we – if we need a motion to create it we can. Can we just appoint it, (Greg), or do we need a motion to...

(Greg): Just have a motion and do it, then you don't have to worry about it.

Man: Okay.

Woman: Okay, I move that we have a communications committee.

Man 1: I second.

Man: Got a motion and second. Any discussion? All those in favor say aye.

(Group): Aye.

Man: Done deal. Okay.

((Crosstalk))

Man: We had talked earlier about our media people being the ones involved with the Libya being the chairman of this. Does anyone have thoughts or discussion otherwise or does Libya have thoughts or discussion otherwise?

Woman 1: No, I think there's a certain group of us have that a lot of familiarity with (unintelligible) and conversations and also the resources to create that messaging.

Man: Okay. (Keith Markson) is certainly a communicator. Who all else in here would be wanting to work on the communications side of it? (Erica)? (Paul)? Okay. Very good.

((Crosstalk))

Man 2: Did you say (Cameron)?

((Crosstalk))

Man: I think that'd be fine.

Man 2: (Cameron), (Paul).

Man: I'd say give him the opportunity.

((Crosstalk))

Man: Okay.

Woman: Okay.

Man: Okay, the only other thing I wanted to bring up is as chairman I'd like to point to the chairman and vice chairman to all committees on sort of an ad hoc kind of basis mainly to keep in touch. Federal law I think prohibits federal regulation having the Council as a whole on all committees. But it – with (Jennifer) and myself in this case or whoever is future chairman, future vice chairman, would have the opportunity to participate in all committees. Do I need a motion for that (Greg)?

(Greg): Sure.

Man: Okay. Do I hear a motion?

Man 2: I'll make a motion (unintelligible)...

Man: Okay.

((Crosstalk))

Man: (Denise), (Paul), second?

(Paul): I'll second.

Man: Those in favor of discussion. Those in favor say aye.

(Group): Aye.

Man: Those opposed. Done deal. Okay now let's get our panel up here. I'm sorry, I was sitting here pretty enthralled with what (Barbara) had to say and I just

didn't – didn't keep up with what I was doing but you all have made great presentations today.

((Crosstalk))

Man: I know I've been...

((Crosstalk))

Man: I've been quite impressed with all I heard and I suspect since each of you is from a different segment you've probably all been pretty impressed with what you heard from the other presenters. So our charge is to help develop some policy for the Secretary that will benefit both people and animals and long term that's our goal, wildlife conservation has to be about humans and it has to be about wildlife. So just the one thing I've heard from most of you is community interest and the importance of having the communities involved.

Why don't we just let each of you kind of tell us what you think our Council can do to further many of these things that you all talked about?

(Unintelligible) why don't we start with you?

Man 3: Sure. Yes, one thing that I was, you know, came to mind as I listened all the stories is that this group is pretty homogenous in the composition. The – when we hear the stories about communities that are internationally see the benefit of the hunting and on the wildlife model – wildlife conservation model, I think that's a missing piece in the United States. When we see media campaigns, Cecil the Lion and then we start seeing all the posting that flow into this social media, I see a lot of misinformation. I see a lot of lack of knowledge from the public on the impact that the hunting community has in conservation. So I think moving forward there should be a better communication and awareness

for the public in general. I think there's a missing piece by the reaction of the public when we have these kind of events.

Man: Okay, very good. (Peter).

Man 4: I think that's actually the Secretary's...

((Crosstalk))

Man 4: ...entire purpose for this. (Unintelligible) Secretary is today's purpose...

Man: Yes.

Man 4: ...the public in general. And about (unintelligible).

Man: Right. (Unintelligible) is one piece of wildlife conservation. To me it's very important piece, it helps fund the rest of it. But...

((Crosstalk))

Man 4: It's the centerpiece.

Man: It's the centerpiece of the deal but it's one piece. (Peter).

(Peter): I'll echo what my colleague said, sensitization is very important.

Man 5: You guys got the microphones (unintelligible) so everyone in the room can hear.

Man: I'm probably one of the few guys in here that doesn't really need a mic.

((Crosstalk))

(Peter): Yes, I'd echo what my colleague said, sensitization is very important and speaking on behalf of Africa, our wildlife is actually at a scary situation. I've been in this industry for 32 years and it's slowly going down. The main thing that certain it is the market – the market value that I can see, like an African state is getting less and less and a lot of it is through political, some of it is through import restrictions and all that that's hampering key species. I know I cannot just dictate that things should be lifted but if the Council can really see – look into this and try and find ways that they can help, countries that proven enough data to show that there was in last quarter to have a sub species important for the economic and the local community there.

If you could help us on that so that some of this importation could be lifted so that we can carry on to look after our resources because without this our resources are diminishing day by day, I would say minute by minute, as we're talking now there is destruction happening in Africa. So we're looking upon you and as I said in my speech, 70% of our revenue comes from America so 70% of Africa's wildlife is in your people's hands. So I ask for you please to please look upon this to help us. Thank you.

Man: Thanks, (Peter). (John).

(John): Yes, the Congo we're looking at right in the Congo that I work in South Africa where wildlife has a value and community share, wildlife doesn't have a value in the Congo; the people have no value in wildlife unless, you know, you have this hope of tourism someday, some place when it's peaceful. That's the only hope. All we work on is instilling of pride in their natural heritage so we're at a totally different level, our only card we can play is these are your

resources, this is your heritage, you want your children to share in this, you know, can you find a place in your difficult lives for wildlife next to you?

It's a tough sell. The way we do that is we give them, you know, you listen to us and we'll help your clinic. You listen to us and be a little bit more sustainable in your use of firewood and water and then we'll help you with your education, so it's a quid pro quo, there's no two ways about it.

I look at, you know, if Congo has sustainable, under Mobutu there was some hunting, some Belgian friends, hunters of Mobutu, but all wildlife was his private hunting reserve under Mobutu in Zaire. He had hunting camps in all the national parks. He had a hunting camp for Mobutu in all the national parks. He had some friends, you know, as I said, they would hunt up near (CAR), they were doing (unintelligible) up near the border. We didn't bump into any hunters all my early days there in Congo.

So we look to the (unintelligible) I think if you get to a place where you have sustainable management population, you have the take and you have hunting it shows you have reached success. You are successful at that point in time because the science determines that you can take a certain percentage of the animals to pay for the expensive costs of conservation. So I think it's a good sign, but unfortunately a lot of the countries in Africa are not at that level than Asia, and we depend on the goodness of people and the generosity of foundations. And I look at this as the same we do in zoo population, we're just holding the line.

We're just holding the line until we have more wisdom, a better understanding, a more holistic viewpoint about life on this planet and maybe there's some building blocks to create a better future for humankind and wildlife. So that's the way I look at it. And it's a difficult and – is it

sustainable? It's not sustainable for a long term and for short term it's sustainable. People tire of helping. I've been surprised how long people helped us in the Congo. We've had some very sad stories. But it's a special place so people really involved and care about what we're doing. And I'm saying that, you know, the committee role here is kind of – it's a difficult one. I understand the value and role of hunting but also how does that translate into places where you don't hunt, you have to be sensitive.

And the second point I want to make, (unintelligible) I know a lot of the big NGO conservation organizations, and just like when we work with zoos, they have the rights people, 99% of the stuff you have in common, it's 1% you don't. And that's the real issue. You need to work on that 1% just assume the rest you care about. So I know that most NGOs kind of sign off to the (IECN) stand on sustainable hunting. They agree with that and that's a very – I think it's a good sound policy. It's – it recognizes the sovereign responsibility of range states to manage their own wildlife and take care of their own people. We have to respect that.

So I think if you start with any large (unintelligible) NGO, do you agree with the (IECN) position on sustainable hunting? Yes, okay, that's 99% we agree on. Let's talk about the 1% we don't agree on. So I think that's a good starting point and it can be inclusive way to do that.

Man: Very good, (John). Doctor (Snitch).

Doctor (Snitch): Well help me carry that forward and you just gave me my intro here. I picked out five words of things I heard today that I think directly apply to the commission and the future work of the commission. And the first one you just touched on, alliance-building. And I think (Barbara) mentioned it also. People tend to look at this as a dichotomy that you're hunting or you're anti-hunting.

The (IECN) does a lot of good work. And so I think as (Barbara) was saying, you need to look at ways to encourage alliance-building between organizations maybe they have some differences, the 1%, maybe there's 50%, 60%, 70%, and use that to your advantage. And to move the game away from us versus them, to us and figure out ways that you can bring people in from very disparate opinions and agree on some things. And I think that would be a good way to start and just to move away from the automatic antagonism that people tend to say, oh, gee, it's a bunch of hunters; or a bunch of people that have panda stickers on their side that come from the other side. So that's – the alliance is number one.

Number two, as we've been talking about all day, you've got to change the narrative. Congressman (unintelligible) said this morning you're playing defense. You are. You've got to change the narrative. But I think it's got to be done and now you have a communications and there's people here that know more about the media than I do, but I think you have to be sophisticated and very deft but at the same time deliver a good message. And it's absolutely positively 1000% true because I was saying to (Emily), if you make a mistake with a colon and a semi colon in some article, they're going to come after you.

See, they don't know English, how could they talk about conservation, right? You have got to have an ironclad story that is documentable and true and not rely on exaggerations or histrionics or anything else, just tell the story.

The third point, (Suri), came from your talk, and we've all talked about the community engagement. I love the idea of your posters. Why can't hunting organizations or the Dallas Safari Club, or someone, why can't you fund posters or backpacks for kids? Tangible stuff that will last for some time that help propel the discussion forward. I think that poster idea, here's what you eat, here's what you don't eat, to give to a young kind, I can't think of anything

better for a semi-literate six-year old in Africa say, well here's a picture, don't eat these things, important, these are okay.

I don't think that's very expensive to do. I don't think it's very hard to do. But I think you have long lasting tangible benefits by having a kind with a backpack or a water bottle or filtration devices or something that was brought to you by the American hunting community. Now, some people will come after you and say you're trying to buy, you know, their favor. No, I'm trying to help them clean the water, some books, posters and things like that. Again, not playing defense but playing offense and saying, I want these kids to know what animals not to mess with. That's very legitimate.

So using that tangible tools to propel education, the women empowerment, jobs, alternative economics for people, to try and say we're doing something positive here as opposed to just fighting a rear guard action.

The fourth point and I would direct this to my friends from the State Department, the hunting community has got to go to foreign governments and demand transparency, accountability and documentation. Where does the money go? Where does it go? And I'm sure you're going to get a lot of blowback from people and they're going to say well, you know, it's – a little bit goes here, a little bit goes there. I think you have a much better story to tell if you can, as I said this morning, aggregate the amount of meat donated every year, aggregate the amount of funding. I have no idea how much funding fees go into Zambia every year. I don't know. It might be \$1 billion, it might be \$10 billion.

But then you have a number that you can use that someone has to come and tell you, well, okay so you gave \$10 million. Well how much did you give? And again, it takes you off the defensive I think. But you've got to go to these

governments and demand transparency. And I think the United States and this commission and the Secretary of the Interior and FWS and the State Department can move that ball forward a little bit with our friends overseas.

And finally, you've said a wonderful thing, hunting is a management tool. Why doesn't this commission start thinking about what it – what tools are in the conservation toolbox? The whole box. You know, yes, it's saving whales and maybe getting rid of plastic straws that clog up the environment. And maybe it's hunting. You know, people always said to me, you're drones are a silver bullet; no, my drones are a tool. And I think what you can then do is start to put together a package and say, there are a lot of different ways to approach this issue, because not one size will fit all anywhere in Africa let alone Africa and Asia.

But can we agree on some basic elements, some simple tools in the box and in many cases hunting is an appropriate tool. It's not the be all, it's not the boogeyman, it's not the end of the world; it's a tool. And I think that might go part of the way again to try to defuse the antagonistic behavior that instantly arises when someone says oh, we're hunting sheep in Mexico. What the hell you doing that for? Well you just gave a lot of good reasons for it. But I think you've got to incorporate all those elements into that.

So that's my five points. And with that I'll give you the mic.

Man 6: (Unintelligible) most governments (unintelligible) 75% of the wildlife in Africa, for example, (unintelligible) and hunting concessions and areas that are, for the most part, not (unintelligible) by the government. You know, should we be focusing more of our resources and how do we channel more resources to that 75% of habitat, conservancies, hunting concessions, etcetera,

etcetera. You know, there's a lot of them out there now, you've got to figure out who can you trust and who can't you trust.

But if you're going to do grants, you're going to invest, you're going to do this and this, maybe it's better off you know, directing it towards the 75% versus the 25%. The 25% we're going to support automatically through our hunting fees and trophy fees, etcetera, etcetera. But as far as that extra boost that I'm going to call it the non-hunting boost, maybe that should head towards the 75%, not the 25%. Maybe it shouldn't be going to the governments.

Now I know you know, that the Secretary is very interested in doing some water projects in Africa. Water projects can help wildlife, it can also help people. You know, you'd like to see a water project done that does both. Something like that also would make sense in the Congo in certain places.

But that doesn't necessarily have to go through a government. Now when you do it, now you're creating a lever that you can use to help further other parts of this component. For example, right now, lions, everyone's worried about somebody killing one lion. There are hundreds of lions being euthanized in Africa today because they can't find a home for them. We've been offered 250 lions captured in family groups for free and we haven't found a home for one in eight months. Not one.

But you can – you could find that home. We can direct you to a particular place I think you, you know, you're familiar with it in Zambia where there's 1.2 million acres and the tribal king would welcome a conservancy like the (BVC). If you're going to go in there and do a water project, part of it is say, guys, part of the deal is you're going to take these 250 lions where there are currently none. And it's my understanding, you know, these guys are receptive to that.

But you've got to have some leverage, you know, with those governments.
But it seems to me go towards – maybe go – put the assets more towards the
non-government...

Man: Government versus non-government. I think my point is documentation.

Man 6: Yes.

Man: When hunters say, I am paying \$50,000 for an elephant, what does that
\$50,000 go for? That's all. Be it the government, be it the...

((Crosstalk))

Man 6: And some of it's going to be – some is going to go to the government, some is
going to go to, you know, expenses, some is going to go to (unintelligible),
some is going to go to the village. You know, we had a good – very good
description about Zambia and what's happening there. That's very detailed
and that's what we need...

Man: Because most people think – right now it's a black hole.

Man 6: That's correct.

Man: There's no accountability.

Man 6: So we can identify that 70% of this is going to wildlife conservation, 50% of
it's going to the communities.

Man: And I would guess most people don't believe you.

- Woman: That's correct. But you can also say more specificity, 70% goes to wildlife conservation, because (unintelligible). Like what specific (unintelligible) are being delivered to that community on an annual basis, aggregate total, (unintelligible) sustainable use (unintelligible) that's the kind of data that might be useful in the conversation.
- Man: And two things that have to be enforced in all of it are accountability and outcomes. Too many things, there's grants issues and there's never a determination of outcomes in government, in my opinion, having been there a few years. But outcomes and accountability are extremely important whether it's to prevent fragmentation of large chunks of land that are privately owned or whether it's through the government's operations, either way, accountability and outcomes I believe are extremely important. Sir, you had your hand up.
- Man 7: (Unintelligible) follow up on our conversation (unintelligible) that's why it's so important to have independent confirmation. You can't just do a, I mean, in the group (unintelligible) without the confirmation. And the system has to (unintelligible) very beginning be totally honest (unintelligible) and if that's the case it's going to be – no matter that somebody may detract from that, but you know (unintelligible).
- Man: Right. You need validation.
- Man 7: Yes.
- Man: Okay. (Emilio) or (Clay), which one is the fruit – the talker here or both of them?

(Emilio): As you know we just listened to the – created the Council for the conservation and sustainability of the (unintelligible) in Mexico. But we're by ourselves down there. We're all private owners and we're private or a (helo) which now we are private. We don't get any support from the government. We don't get any support from anybody. But for organizations like the (unintelligible) Foundation, or nonprofit organizations, we have a lot of goals in order to be successful.

We need to work a lot with the (helo). The (helo) is 51% of the land of Mexico. We are in very poor conditions, we need to help them out. And we wanted to do it through wildlife, through hunting. The location of the land in the desert – in the Chihuahua desert is a lot of desert – is (unintelligible), is not goats, is not cows. And so we have a great challenge. And we'll get a lot of support from (unintelligible) Foundation and my request would be that (unintelligible) Mexico we're trying hard and we're doing good but we need help.

Man: (Clay).

(Clay): I guess the only thing I'd add to that is, you know, we're trying to take baby steps. We've watched other efforts try and fail, some have worked but we're looking at the bigger picture and to go back to the communications side of this we have to start with communication between land owners. That's never occurred ever in any of the jurisdictions. And so we started with a meeting this last January at our annual convention and so I had all the key land owners from all the various states.

That's the first time that I know of that has happened where we've had everyone at the same time. Some of those guys hate each other. But it doesn't

really matter, we had them at the same table talking to each other and talking about those challenges. So we have to – we have to start there.

A lot of people in Mexico don't – they don't understand about their resources, don't – they don't support it, there's not a whole lot there. But I guess I'd ask the group you know, I see people that come north through my state because they're hungry, because they want to eat. And I think we need to keep that in mind. And so I've always tried to remember that but that is part of the equation here is involving those people and continuing to build on that part of it.

And for us I guess the last thing – and it goes back to one of the things Chairman (unintelligible) said earlier and that is I guess a plea for help. One of the challenges that good land owners, good conservation-minded land owners face is the CITES stuff, the import and export permits and those sort of things. And he can give you examples of land owners that have taken a legally harvested animal and it's been two years and they still can't get the animal out of the state in Mexico where the animal was harvested.

Now that's not – (Greg), that's not just US Fish and Wildlife Service stuff, I don't – I'm not even going to look at you (unintelligible) be like this. It's other things. And so I guess the request is work with us, let's figure out a way to make it work. I mean, you know, we all got – half of us got on a plane that had a TSA pre check, in other words, you were checked out. The same could be done for land owners that are conservation minded that are doing it for the right reasons and that are complying with the law.

And so help us figure out how you make that work. The Council that (Emilio) referred to earlier, that was the number one challenge faced by all these land owners and every state in Mexico is the CITES stuff. And so that's the thing I

would love – (Eric) and I visited about that earlier – I would love to sit down with your staff, (Greg), and figure out solutions because I think they exist; I think it's pretty...

(Greg): ...import to Mexico or import to here?

((Crosstalk))

(Greg): If you can't get it out of the state I'm thinking...

(Emilio): Well, you need to do a lot of paperwork in Mexico City. Some of us we do it directly, we have a great relationship with the (unintelligible) Service at the border in Laredo is Mr. (Blanco) from (unintelligible) Service. And we just call and say, okay, what day can we get to the border and they wait for us and they do all the paperwork and it works.

(Greg): But you're getting the export permit okay?

(Emilio): Yes, the export. However, I understand that CITES is not for everybody. What I mean is (unintelligible) CITES here and you go on hunt in Arizona for (unintelligible) why do you need a CITES if you hunt one in Mexico?

(Clay): I think what he's referring to is in some of the Mexican states they actually have more sheep than we do in the United States but yet we hold them to a higher standard I think is what he's referring to.

(Greg): (Luis), do you have an answer for that?

(Luis): Other than, you know, that's a – the convention basically publish, you know, the permit system for the exports. I think and when we're talking about an

importation from a foreign country versus a species that is taken locally, so there is different type of regulations that apply so maybe on the regulatory framework might be some place to look at for some opportunities.

Man: (Clay), do I understand you're suggesting develop a criteria that if you or (Emilio), whoever, goes to Mexico, hunts a sheep, you meet the criteria on all the different...

(Clay): In advance.

Man: ...that importation is automatic? As long as that criteria is met and...

((Crosstalk))

Man: ...and it's been confirmed, etcetera, everything's documented, properly documented, that the criteria is the establishment and have it documented and importation occurs. Is that what you're suggesting?

(Clay): Something along those lines, something that we can work together to work through some of the issues. And it's not just – it's not just the US Fish and Wildlife Service issues, I think you guys can play a leadership role when it comes to some of the states that maybe (unintelligible) problems in Mexico is on the other end of it too.

Man: Okay.

((Crosstalk))

Man: Okay. Okay, does anybody else have anything to ask our panelists about at this point?

(John): Oh yes, sorry.

Man: Boy, you made that by three seconds, (John).

(John): Just one more thing.

((Crosstalk))

Man: Thirty seconds.

(John): Fish and Wildlife Service (unintelligible) validation program or importation of (unintelligible) species and (unintelligible) and that is they can (unintelligible) Fish and Wildlife Service (unintelligible) – the Fish and Wildlife Service (unintelligible) that the hunting enhances (unintelligible) issue another permit and you look back at the last one and (unintelligible) what did you do with the money? (Unintelligible).

Man: Okay.

(John): There's no black hole, there hasn't been a black hole in a long time. (Unintelligible).

(Phil): Hey, (Greg), just we'll volunteer to help do whatever is needed from our side of it. We have a Central Asia I think going to some of the initiatives there, we're talking about the same thing so we'd gladly help do anything you want us to, (Greg).

(Greg): Thanks, Phil. Well, appreciate being able to work with all of our foreign partners as well as domestically. As I mentioned at the beginning of the

meeting we have a good number of folks turning over in the permitting program because of some legal actions, court directives, we're having to do our business a little bit different way. So I think it's a very good time for all of these things that are coming up to be evaluated and make sure we're doing this right and make sure we're doing it in a streamlined fashion, make sure and I think this is what frustrates people more than anything, that we're communicating to people.

People can tolerate a lot of things in life if you'll tell them what's going on. And I think sometimes the lack of communication has been what drives the frustration issues to the highest level. But I do want to say thank you, Chairman, but thank all of you from the Fish and Wildlife Service for attending as well as the Council and the guests who came today and watched from a far across the room. I hope you've all been able to hear over there. But anyway from the Fish and Wildlife Service and Department of Interior, Secretary Zinke, thank you. And I think it's been a great meeting, so.

Man: Once again, thanks to all of you especially the Council members and the presenters. I think it's been a very good day. And I think we can take some of the stuff we learned today, hopefully reach out to some other people, develop the commonalities of interest as Dr. (Snitch) was talking and others, (John), and hopefully – hopefully we can make some really good things happen over the next two months for everyone. Do I hear a motion to adjourn?

Man 6: Motion.

Man: Motion, second.

((Crosstalk))

Man: Any discussion? All in favor say aye.

(Group): Aye.

Man: Thank you. Thank you for your presentation. What I heard was that
(unintelligible).

END