

NWX-DOI-FISH & WILDLIFE

**Moderator: Cade London
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5:24 am CT**

Coordinator: Welcome and thank you for standing by. At this time, all lines are live and interactive for the duration of today's call. It is advised that, when not speaking, you utilize the mute function on your phone. If you do not have a mute function on your phone, you may press Star-6 to mute and unmute. This conference is being recorded. If you have any objections, you may disconnect at this time. You may begin.

((Crosstalk))

(Eric Alvarez): Ladies and gentlemen, just real quick, to make a mention. We are transcribing this session. So, it will be available for the public. The transcription will not be available, but it will be available to us to do our minutes to present that.

And there's several number of people on the phone - the Council members that could not make it in. So, in order for them to hear them, you must use the microphone. And so, please, if you have statements or anything, just pass the microphones around. I think we have enough two per table - for one for two people. All right. Mr. Chair? It's your meeting.

(Bill Brewster): Thank you, (Eric). We've had the misfortune here of having some bad weather in the West, but even more, the grounding of a 737 Max 8 plane. I read yesterday there's a little over 300 of them in service. If you figure each of them make five flights a day, you're talking about 1500 flights are grounded. And so, numerous of our members were not able to get in yesterday and will be on the phone, so as he said, try to make your discussions into the phone - into the microphone, and they will have the opportunity then to interact (unintelligible) presenters.

Just to introduce the folks that are here today, we'll let them introduce themselves. I'm (Bill Brewster). I'm the former Congressman that is retired now and spent most of my life involved in wildlife conservation and am deeply involved in it now.

(Jennifer Chatfield): Good morning. I'm (Jennifer Chatfield). I'm the Vice Chair of the Council. I'm a veterinarian. I currently live in Florida. And I'm excited to see everybody - get the group together. And we have some new (faces), but they are few, and everyone on the phone, so, I'm looking forward to getting some good information today.

(Bill Brewster): Okay. Shall we go down to the far end, (Paul)?

(Paul Barbas): (Paul Barbas), member of the Council. I am in the finance business with Atlanta, and I am president of Safari Club in Nashville.

(Chris Hutchinson): Hi, (Chris Hutchinson). I'm a resident of Dallas in my 20th year, and I am a past President of Dallas Safari Club.

(John Jackson): Good morning. I'm (John Jackson), President of Conservation Force, which stands for Sportsmen of the Force.

(Ben Thursday): Hi, (Ben Thursday). I've been involved over 30 years and hundreds of millions of dollars of conservation projects around the world, I'm very proud to say, thank you.

(Mike Ingraham). Good morning. I'm (Mike Ingraham). I'm a member of the Council as well - Phoenix, Arizona. I been involved in conservation issues my entire life.

(Keith Mark): I'm (Keith Mark) from Basehor, Kansas. And I'm proud to be a member of the Council.

(Bill Brewster): Okay, (Rowena), will you introduce yourself now?

(Rowena): Where's my button?

(Bill Brewster): That's - it's on already.

(Rowena Watson): Great. Good morning. This is my fourth Council meeting. I'm (Rowena Watson) with the State Department. I'm in the Bureau of Oceans and International Environment and Scientific Affairs, also known as OES. And I'm an Ex Officio Council member.

(John Harrison): (John Harrison). This is my first meeting. I'm the Administration Senior Advisor for Oceans Environment and Science and Technology, and I'm an Ex Officio member as well.

(Bill Brewster): (Andrea)?

(Andrea Trapich): Good morning, everybody. Sorry for being late. So, (Andria Trapich). I am the Principal Deputy Assistant Secretary for Fish and Wildlife and Parks,

exercising the authority of the Assistant Secretary for Fish and Wildlife and Parks. I'm been Department of Interior, so the longest title ever, but excited to be here representing the Department of Interior.

This is my second meeting, so I'm still getting to know everybody, diving into the issues a little bit more, but - and welcome to everybody here as well. And I'm an Ex Officio on the Board.

(Bill Brewster): So, we have several notable people sitting in the Gallery back there that will be listening and making notes and possibly offer presentations at the end, if they choose to.

Anyone who wants to may comment at the end. We will have a paper that's taking signups to do so. We want to be as open and transparent as possible. So, there will be opportunity for people to sign up to make comments at the end. They will be limited.

Woman: Mr. Chairman, could we have the folks who are on the phone introduce themselves as well?

(Bill Brewster): Yes, let's get the ones on the phone to introduce themselves, please.

((Crosstalk))

(Olivia Oprey): Sorry I couldn't be there today. Oh, you're getting overlapping? You want to just tell us when to talk?

(Bill Brewster): Was that (Olivia)?

(Olivia Oprey): Yes, I think it was just having two people speak at the same time. This is (Olivia Oprey). I am in Montana. Unfortunately, unable to be there today. I'm an International Adventure Consultant, and proud member of the Council.

(Bill Brewster): Okay. And next?

(Erica Rhode): Hi, this is (Erica Rhode). I'm the Director of Hunting Policies for the National Rifle Association and again, very disappointed that I'm not there today, but happy to be on the phone.

(Bill Brewster): Okay, next?

I think (Denise Walker) and (Peter Rowan) will be on the phone if they're not now. I talked to both of them in the last two minutes and they will be on the phone, so they will be chiming in at the proper time. (Eric)? Turn it over to you.

(Eric Alvarez): Thanks, Mr. Chairman. Just a couple housekeeping notes for folks present and both on the phone, just please know - oh, I'm (Eric Alvarez). I'm with the U.S. Fish and Wildlife Service, the Acting Director for International Affairs and the Designated Federal Official for this Council. So, I am interfacing between you and the public.

An announcement: in order to maintain a quorum, we have to have at least one person that's on the phone currently stay on the phone throughout the entire meeting. Because we have the folks here in this room and then one on the phone would (continue) to form a quorum. That's all.

So, everybody knows where the bathrooms are. We have for the Council members, we have some refreshments in the back, please help yourselves,

coffee and tea and otherwise. And I think after maybe some folks want to make some remarks, then I have a couple of business items for adoption that we can kick off here and begin the meeting, so you want to do remarks first, Mr. Chair?

(Bill Brewster): Okay. I think the introductions are probably sufficient for the ones here. Let's - do you have some particular remarks you'd like to make at the start from the State Department or from Department of Interior?

((Crosstalk))

(Bill Brewster): Okay.

(Peter Horn): This is (Peter Horn).

Woman: (Peter).

(Bill Brewster): (Peter), thanks for joining in. Thanks for being on the phone. And we'll start our presentations here shortly.

(Eric Alvarez): Okay, so the first thing, Mr. Chairman, would be adoption of the Minutes and the Agenda of this meeting, which is actually projected up on the screen for those in the audience. I know it's a little hard to see. When the presentation starts, we can turn the lights down just a little bit. But is the Agenda satisfactory to the Council?

(Bill Brewster): Okay.

Woman: So, I would move that we adopt the Agenda and also adopt with the same motion that approval the Minutes and the (procedure).

(Bill Brewster): Do I hear a second?

(Keith Mark): Second.

(Bill Brewster): (Keith Mark), second. Is there discussion? Seeing no discussion, all in favor say aye.

Group: Aye.

(Bill Brewster): Aye. Those opposed? It certainly passes.

(Eric Alvarez): I think, Mr. Chairman, it's your meeting.

(Bill Brewster): Okay. I'd like to just make a short recap of kind of where we've come from. The Secretary appointed this Council a little over a year ago. We had our first organizational meeting in Washington about a year ago. And there are 16 on the Council, and it's my understanding that the Department here is in the process of appointing two more to the Council somewhere in the process; am I correct?

Yes, ma'am?

(Jennifer Chatfield): Yes, that is correct. I think we are trying to make a decision, because some of the public comment period was open during the last of appropriations. So, we need to make a decision if we're just going to put that back out and extend that comment period. So, we'll probably have that decision here in the next week, to try to decide that.

(Bill Brewster): Okay, thank you.

(Jennifer): If you have any thoughts on that, glad to hear them.

(Bill Brewster): After an organizational meeting, we had a meeting then in Atlanta and had the opportunity to tour the import facility there for all Fish, Wildlife, et cetera comes in through the Atlanta Airport. Got a pretty good education on that. I think we all learned quite a bit that afternoon. We also had presenters from Zambia, from several African entities, as well as presentations on anti-poaching.

The next meeting, we had was all African presenters - traditional Africans. The Minister of Environment from Namibia, a lady that's over all the NGOs - all the conservation NGOs in Namibia.

We had the Head Ecologist from Zimbabwe; we had the Head of the Wildlife Section of Tanzania; and we had a great meeting, in my opinion, when you had Africans explaining what Africans felt were the problems and the solutions.

And so, we move now to today's meeting. I think we have some very good presentations. Our presentation today will be from organizations that are involved in the conservation arena.

And so, our first presenter today is going to be Richard Sowry. Richard is with South Africa National Parks. He's an on-the-ground Ranger over a large section of the Parks and has to deal with the animal - human-animal conflict. He has to deal with everything connected with large animals in a setting such as Kruger. Richard?

Richard Sowry: (Unintelligible).

(Bill Brewster): Just a moment. Seeing we have a little technical difficulties. At my age, anything is a technical difficulty. See, if I was some 14, 15-year-old kid, it can be solved instantly, I would think.

Richard Sowry: (Bill), would you like me to talk from the microphone here, so it can...

((Crosstalk))

(Bill Brewster): ...try to get something worked out here.

Richard Sowry: Okay. Maybe I should - while they're doing that, carry on and give a bit of my background and...

(Bill Brewster): That would be great.

Richard Sowry: ...tell them where I've come from.

I have an Honors degree in Wildlife Management, which I got in 1996. And since then I've worked in - I would say you could describe it as most of the fields in South Africa that are the revenue generators for conservation efforts.

So, I started in the photographic - the wildlife photographic industry. In the luxury safari lodges next to the Kruger Park, the Sabi Sands Game Reserve. It's about 60,000 hectares. It employs more people in that than in the entire Kruger Park. It's about 3000 people today. And they are the primary example for photographic safari as a revenue generator for conservation in South Africa. I spent two years there.

After that, I joined Kruger Park. I was once again in the field that I moved into, Wilderness Trails Ranger, and that's for a couple of years. Then I worked in the private sector for the Kesari Private Nature Zoo, also joining Kruger and part of (outer) system.

And there they have a mixed-land use. They have photographic safaris as a revenue generator. And they have hunting as a revenue generator. So, I was responsible - now I was getting into the actual resource management, rather than, you know, doing it like that. And there we had to manage the hunting for the Reserve, and I must say, in the last 20 years since then, things have changed quite a bit.

After that, I moved into Kruger, and it's nearly been - oh, 2002, I moved into Kruger, and I've been there ever since. And where I'm based in the Park is on the border between Kruger and the private reserves open system (formal).

You may have heard of the Timbavati Game Reserve. They're my direct neighbor. I have the Manyeleti Game Reserve, which is a provincial game reserve. These are not National Parks, but they're part of the open system. And I have them as neighbors.

So, since then, I've been involved in resource management. So, within my area of the Park - I don't know if you guys work in hectares - but the size of my area is 95,000 hectares. So, I think that's about 950 square kilometers. Within it, I've got 25,000 hectares of photographic - intensive photographic safari area. So, that is the luxury photographic lodges.

Because Kruger is self-drive. You would arrive at a gate, pay, and in turn you'd drive yourself around. You would cook for yourself in the evening. Thank you. And you would do it like that.

The photographic lodges - some of you may have been there - you would go, and they look after you completely. They would give you a guided game drive. I've got 25,000 hectares of them. And that's what I'm going to explain to you today is how we manage the resource use there.

And then, next to us is the Timbavati Private Game Reserve, the Kesari, the Umbabat. I believe you heard from a guy called Craig Spencer with the Black Mambas, the (Behluli). He was representing what goes on in the (Behluli). And that's another about 150,000 hectares. So, we have them as a neighbor, and they use hunting as a revenue generator as well as the photographic.

But because it's an open system, the National Park is affected by the offtake of animals for hunting, so we've been involved with that for the last 18 years. And we've grown the process from, basically, how we do it as a protocol, and I'll go through that. We have a protocol. It was about a 2, 3-pager. It's now nearly a 20-pager, as things have grown, and we've become more aware of what needs to be managed.

So, that's what I'm going to talk to you today is that. So, I'm still doing that these days. The last ten years I've spent - I've spent around half of my time doing that, so anti-poaching, itself. So, yes. Chasing poachers and trying to get to books with them, because we have a real rhino-poaching problem, as you've probably heard about. So, that is what I spend half my time doing.

And then I spend half my time doing what I'm going to discuss today, because if we don't get this right - this is in my mind - if we don't get this right - forget the rhino poaching - because there will be no rhino to poach if we don't get this right. Because this is the foundation what we're on about here.

If we don't get this right, don't worry about the rhino poaching. And we need to start focusing - I think the debate in the world these days is becoming more individual animal-specific, rather than systems-specific.

And it's systems that are required to conserve, not an individual with a name. And unfortunately, it's going this way, and I think we need to be aware of that and turn the tide back to systems conservation.

All right. So, I'll kick off here. So, the title of the talk is "Responsible Conservation-Based Resource Use in Protected Wildlife Areas." That word, "responsible," is quite important.

Initially, when I put this presentation together, we started using the word, "ethical." And "ethical" is - it's a hot potato. It's a very difficult word to describe, because everyone in this room has got a different base of ethics, and it's based on your upbringing and your surroundings.

So, you imagine you come to Africa, that's also a totally different scenario, and the ethics are very different. So, in the end, we actually moved to the word, "responsible" because that's what it's really all about. So, the choice of that word, "responsible," is important.

And then, the next one is "conservation." And I think society around the world is losing touch with what is conservation. It has a definition. It started somewhere, and we need to stick to what conservation-based principles are.

And you can take me on to the first slide.

So, basically, conservation is defined by the IUCN. And the original definition was something along the lines of “wide, sustainable use of the Planet’s resources.”

Since then, it’s changed to a more complex definition that you really would have to get into to break it down to understand what they’re actually on about there. But in essence, it is “wide, sustainable use.” And the difference between conservation and preservation is that preservation is “no sustainable use.” So, those are the principles of conservation. But simply - I’m going to go on to the next slide.

In 20-odd years of conservation, there are three key principles upon which a conservation model succeeds or fails. And these are them. And this is what I want to talk about. So, anytime I talk about a resource use management model, I break it down into these three principles. And you cut them back to the basics of this, and you understand what they are, and then you can tick the conservation box. If you’ve ticked them, then you’ve got a conservation-based resource use model.

If you can’t tick the boxes, you need to amend, because you cannot call yourself conservation unless you’re ticking these boxes. And I’ll go through what these boxes are.

So, the first one is economic sustainability. And that’s all about the livelihoods of mankind. If you don’t have these livelihoods, there’s no benefit out of the wildlife area. And in Africa, particularly, you’ve got a broad diversity from First World to Third World in one continent. And when you have this scenario, it’s particularly important.

You maintain the land use, and the end land use has economic sustainability if it is providing livelihoods. And those livelihoods are quite diverse, and we will talk about that a bit.

Then there's ecological sustainability, and that's the obvious one. And that is what people usually refer to when they're talking about conservation. It's really only the ecological sustainability. And that's the offtake or the use of the actual resource.

And thirdly, there's the social sustainability, and this is where we're all caught up, is that we cannot decide on a bunch of norms that are ethical, responsible, and I believe we need to align what we call social sustainability on the rational society's norms and standards.

Because society, if you put it into a curve like that, you would find, let's just say, 5% on either side are opposed to each other. But the 90% in the middle, that is what I would refer to as the rational society.

So, in the South African context, I would call the 5% on the one side - that would be the anti-resource use. You might have referred to them as animal welfare, which I don't think is a fair representation of what they actually represent; animal rightists, and that's something - it is then, in the South African context of more actually anti-resource use, if you want to describe it properly.

And then on the other end of it, you've got the intensive use of industry, and that's more commonly, which I think in this room would understand, would be - I would call - that would be the canned. And I wouldn't call it hunting, because I think hunting is a fair chase definition. I would call it the canned killers. So, that's the opposing end of the scale.

And then we've got the rational society in the middle. And that's what we need to align social responsible sustainability standards.

Now, with this - all 1, 2 and 3 - economic, ecological and social sustainability - must be given equal priority. If you bias the economic over the other two, you're going to fail. If you bias social over ecological and economic, you're going to fail. And ecologically, likewise. That's Planet principles. We cannot avoid that.

Okay, so for ecological sustainability, what you've got to do is you need to cover the expenses of the wildlife management area, first and foremost. Road expenses, contra-poaching, or anti-poaching - and by the way, if I use a complex term at this point in the talk, please just put up your hand and just me what I'm referring to, because sometimes - this is the stuff I talk daily - to me, it's natural and normal. And to you it's a foreign word, so please ask it.

Woman: I have a question on your previous slide.

Richard Sowry: Yes?

Woman: You said that if any of these veer out of balance, right? If you give too much deference to one, then the other two suffer, and your (other).

So, do you think right now, in like Vancouver and South Africa where you are, that any of those three is being prioritized over the other two, or two being prioritized over the third?

Richard Sowry: We've just updated our Management Plan for the National Park. I can't speak for the rest of the National Parks, but it was along these principles. So, if you

go to the Constitution of South Africa, and you trickle down from there to the Management Plan of the National Parks, it's based on that. And that's the talk which it is these days.

So, it is properly done. We are attempting to do that. But we need to stay on track, and we cannot get hijacked off that path, because that will give you conservation sustainability.

Woman: Thank you.

Richard Sowry: Pleasure.

Okay. So, the counter-poaching, or anti-poaching, you've got to cover that. You've got to cover water for game in areas. You will know, and you can relate to your landscape, is that through fencing and ranching and the rest of it, landscapes have fragmented. So, some areas, you've removed the access to water. So, we provide water for the game. We've cut back on that quite a lot in the last 20 years into the Park for sound reasons.

You've got to cover censuses, you've got to cover research, erosion work, et cetera. That's first up. You've got to cover that in the economic sustainability.

Then you need to provide livelihoods and benefits for mankind to justify the land use as wildlife. Because if there are no benefits to the people around the area, and to the society of the country in general, what will happen is the land use will change.

So, what happens in Africa where the land use changes, first up, you've got disgruntled society around a reserve, if you're not providing the livelihoods -

true livelihoods and benefits for the society around the reserve? You have a disgruntled community.

When you have a disgruntled community, they support the poaching at a bush (need) level, and they basically eat the wildlife out of the game reserve. Then from there, there's nothing left, or not sufficient to maintain the Reserve, and the land use changes to something else, like citrus or mining.

And there are examples of that in our area at the moment. There's a small-scale example where the land use changed from wildlife to - it's changing to citrus farming. And that's a loss for the wildlife. And if you go back to it, and I'll talk to this later. Our area, the land uses of either photographic safaris or hunting, but primary for a module for hunting, and yes, the end result is that the land change is happening.

This is a point, the next one, under economic sustainability. It's not often discussed, but you need to provide a sustainable experience within your economic model. Otherwise, your first - and I don't refer to tourists as those within the photographic lodges. If you come to South Africa to hunt, to photograph, on a cultural tour, you're a tourist.

So, your experience needs to be sustainable, otherwise your tourists do not come back time and again. And this is a baseline principle, is that humans are fascinated by wild experiences, and that's the word, "wild," is highlighted. And we lose interest in artificial experiences - i.e., canned experience as well. And in hunting context, we'll understand the word, "canned."

But I also refer to canned experiences in the photographic industry as well. So, keeping things wild is important, because it keeps your economic model

sustainable. Think about it. If you, for instance, wanted to see a lion in New York, you could go to a zoo, and you've seen a lion.

So, why would people sit 18 hours on an airplane to go to Africa? Because they want to see a wild lion in a wild place. And that is the key to a door. And that wild is what we need to look after. The wild place and the wild life.

And under that, I'm going to talk to wild tending and canned tending, as a description. And we are heading one way or the other, based on what we are doing. And we want to be heading, for the sake of economic sustainability, we want to be heading wild tending in all our wildlife management decisions, because if we will have a sustainable economic model.

If we can't tend, we fragment the land, cut it up with fences, we make it less wild, and we get bored of it, and people don't come back. And you lose your economic model.

And then, the last point is to achieve economic sustainability, you need to balance resource use by considering other land uses in the area. So, for example, in our area, the Timbavati Game Reserve, or the APNR, the Associated Private Nature Reserve, which is about four reserves put together - Craig Spencer is from one of those.

When a hunt for a lion would take place, they don't just go ahead with the lion, and choose the right age and sex of the lion and the rest of it. There is a consultation process with the photographic lodgers in the area. And there's a meeting held where there'll be a discussion. The biologist will put up a set of slides saying, "Based on the right age, and the rest of it, and dynamics of the pride, these are the lions that we believe are ecological sustainable for the offtake of the hunt this year."

And the lodgers will then be asked, “Which of these - what’s your knowledge of these lions, and what’s their role in your operation?” Because by removing the wrong lion for them, it’s pretty easy - from a biologist’s point of view, the lion that holds the criteria of the right age and dynamic within the pride is the right lion. And we would have eight within an area of 50,000 hectares.

But to them, six out of the eight could be very important younger males; he’s over the minimum age, but he is not being challenged by the younger males, and you would then want to take the other two, because - and by doing it this way, you do - this economically sustains their operation, which is just as important for the hunting, because they’re both generating the resources for the Reserve to survive.

Okay. I’m going to get into ecological sustainability. Most of us get this stuff. And the debate these days is mostly around about the hunting, but we must not forget the rest of the resource-generating models on African wildlife areas.

So, the offtake, or use of the resource - we use both of those words, because you may not remove it totally - must be sustainable. And it’s all really about the number of people required by your activity to generate sufficient income to benefit and maintain economic sustainability. So, we’ve got to link up to the economic, and that’s all about the number of people required to do that. So, some of the aspects to consider; first up is water consumption.

So, in our area, you’ve got to monitor this. You’ve got lodges on a 10,000-hectare area or reserve that have about 48 tourist beds. They use between 700- and 900,000 liters of water per month. We monitor it inside the national park.

A lodge of 63 guests, plus about 110 staff members, they would use up 1.5 million liters of water a month. And you've got to ask yourself, is this sustainable? So, you've got to measure and monitor it. Very important, that aspect of wildlife management.

And that's not done uniformly across the board. And we are moving towards that. So, the new Management Plan of the National Park will apply these things. And the photographic industry will be required to do this. Because you need a balanced perspective on your management of your resource. So, they are going to need to do this, in future.

Then there's the waste generation. And the management of sewers, where does all this go? If you've got 200-plus bungalows in a game reserve, what's going on there?

There is the consumption of soil and the impact on soil. So, off-road driving to go and view game, that results in erosion. More roads, the road is a drainage - in line, basically, it's an erosion line. So, road construction needs to be managed carefully. You need to analyze the density of your road width networks. Too many roads, you're de-wilding. That's aspects of soil sustainability.

Then there's the manipulation to provide a game product. So, artificial water holes, or bush caring to attract game or make it easier to hunt it, all those aspects need - do - have an impact. They need to be considered.

There's the impact on vegetation; often a driving impact on sensitive areas; often a driving result in the depth of grass and rare plants. And then the caring of vegetation for camps. That also needs to be considered.

And then, also, within the ecological sustainability is hunting's major consumption, and that is the wildlife consumption. And under that, the amount you take off, the quota. - the total, that's commonly discussed. But we talk these days more to the age class and the sex of the species that are removed to understand whether that's sustainable, and the effect of these need to also be monitored.

So, with your ecological conservation priorities, they need to be addressed in the following order, because it's from the base up, the bases up. And that soil and groundwater must be your first priority. Without soil and groundwater, you won't have the next, which is the plant communities.

And after that, do we consider the sustainability of the animal communities. And this is not often - this used to be a debate when I entered conservation, and the discussion about land management and healthy regenerating land management was the order of the day.

And these days, the debate seems to have gone to a lion with a name and an elephant with a name, and we've lost touch of what's really important. And it needs to be based on those priorities if it's going to be sustainably done.

And then, lastly, ethical sustainability, and this is the hot potato that I said earlier, and it's quite difficult to get into. But basically, the activities and the practices within an area need to align with rational society's norms and standards to be ethically acceptable.

And a person's ethical beliefs stem from their cultural background and life experiences, as I said. So, big hot potato. So, to do this, I would like to put in context some of the resource use on Planet Earth. And you've got to do this all

the time to understand these are the realities of surviving on Planet Earth and the realities of our existence.

So, I've got a couple of pictures here. So, water use on the planet; without the use of water, we don't survive. You've got Kariba, top right that photograph. Bottom right is the flood plains of Mana Pools. Now because the dam was built, it's the life span of those flood plains is finite now. But the dam was required. It's a reality. Somewhere we're going to have to understand what it's doing to the Plains, but that magnificent flood plain of Mana Pools, because of the building of the dam, which was necessary, may have a finite life span.

Then there's the bore holes and extraction of groundwater for human use. Unavoidable. It's unseen, but what effects does this have on the system, and is it sustainable? This is the reality of the sourcing of food - the eating of fruit, vegetables and meat on Planet Earth.

To facilitate the farming of crops and fruit, the process is as follows: you need to remove the animals from the landscape. Then you need to remove the natural bush. Then you need to plough it up and plant the crop. And then you continue to kill insects for evermore. That's the reality of eating fruit and veg.

Eating meat - unfortunately, these days on the Planet, it works like this: the conditions of how the animals are kept is important. What the animals are fed - you've got to ask yourself those questions - it is grain-fed, grass-fed, does it live in the feedlot? Does it live on the land? So, it's all about how the animals are harvested and processed, and an animals dies. That's the reality of eating meat.

Ecologically speaking - and this is getting to ground zero - we cannot afford to all be vegetarians on the Planet. I don't know if anyone ever knew that.

Because if you get down to grazing management around the world, you'll start to understand that modern cropping is actually a state of erosion. So, we cannot all afford to all be vegetarians.

And these days, we are starting to learn more about what drives the productivity of grazing systems around the world. And it's hoofed animals on the land that drives the productivity. And when properly managed, it's what keeps the range lands of the world sustainable and productive.

You want to know more about that, go and look into the Savory Holistic Management Model. He was born - it was Rhodesia in those days. He still spends half the year in Zimbabwe near Victoria Falls, Matetsi. And he spends the other half of the year in the United States. And he's got these holistic management models - very interesting.

But this is the tip of the spear of where range land management is going in the world. And his holistic decision-making process is how we need to make wildlife management decisions as well. And it's brilliant. It's brilliant. And there's more on that to come, going forward.

Okay, the realities of power and fuel. Look at the sites associated with our consumption. So, top right is a photograph of a power station, coal fired, in South Africa. Lower left, that's a coal mine in South Africa. It's beautiful, isn't it? Oil rig, oil well, oil refinery, and all of this is required to produce electricity and the fuel for transport - the reality.

Whether you're anti-resource use, or some people might call it animal rightist, or you're a canned killer, it's the reality just at the end of the day, you climb in a car. You turn on a light. And with all of this, we need to start making decisions around the resource use, anti, photographic and that.

And then there's the luxuries, like diamonds. And if you were from the East, and you were an older Eastern gentleman, you might talk about rhino horn, because I use the analogy when I discuss the use of rhino horn. In our culture, it would be similar to diamonds.

They both - the production - causes a lot of negative impact, as you can see. That's what a diamond mine looks like. Top up is the trucks are around, and it's the diamonds. And a diamond is not going to help you eat, breathe or survive until tomorrow, and it's the same with rhino horn.

Okay. So, for the survival of mankind on the Planet, resource use is unavoidable. So, how do we set ethical standards to start with? Well, with the humane respect for wildlife would be where we would start.

So, just chatting earlier with (Chris), and we mentioned - I think we mentioned Ron Thompson, and he gave a talk to me 20 years ago on this, and he started drawing the line, and he said, "Environmentally, as a people that cares for the environment - and we should all do that - animal welfare; that's caring about the welfare of individual animals - and we should all do that."

And then, he used the term 20 years of an animal rightist. Today I prefer not to use that term, because if I use that term to a person in the hunting industry, they would understand what I mean. But if I use that term to my mother, she would think an animal rightist is someone who cares about animals. So, I would be misrepresenting the situation to her.

So, today, I prefer to use the word, "anti-resource use," because that's really what it's about. And that's not rationally feasible for the survival of the

Planet, and I don't believe we can accommodate this in our decision-making about resources.

So, some principles to achieve ethical sustainability: needs to be natural by design, encourage natural process, needs to keep wildlife wild and the place wild, needs to be humane, needs to be responsible, and it needs to be rational. And that is how, I believe, we are going to achieve ethical sustainability.

So, to roll up, a couple of fair chase principles are required: no canned experiences. Some examples to consider: off-road driving needs to be carefully managed, otherwise, you get erosion. You've got to consider delivery and service vehicles, otherwise you've got excessive carbon footprint and you're de-wilding, how many tourists you allow in the area before you de-wild it.

Hunting needs to be conducted according to a set of rules to ensure the spirit of fair chase is honored. Hunting must be executed on foot, and with limited artificial aid. You've got to have the animal in its natural habitat and free-roaming.

You don't use aircraft unless you're trying to look for wounded animals, and then you limit the possibility of wounding. And it requires competent marksman and the necessary hunting skills. So, some of those are some of the principles to achieve that ethical sustainability.

So, we've got those three main principles to achieve a successful conservation model. So, let's look at a game reserve, or a wildlife area, in Africa and apply these principles.

So, to kick off, I think this is important. In a climax state - so, totally wild - in Africa, there are two main ways of sustainably generating income from wildlife that maintain the wildness of both the wildlife and the land.

And those two main ways are the tourist safaris. And I will talk a bit later about that; a means of generating command of wildlife because you probably are aware of the intensive wildlife breeding industry in South Africa, and breeding for meat, and all of those things.

But they don't maintain the wildness of the wildlife and the land. They de-wild, to a certain extent, so there are only two ways. And it's the photographic safaris and the hunting safaris. And we need both if we're going to be able to justify and sustain wildlife in Africa as a viable land use, going forward. We absolutely need both.

And there's also the impression I find when I talk with people that are against hunting that they assume that if they ban hunting, that land use will be replaced by photographic safaris. They're assuming - and they're incorrectly assuming. And this is why.

So, why is hunting necessary in the African context? And here's why. Here's a map of the (SADC) region of Africa. All the green, dark green dots on the map, those are wildlife areas. Not the privately-owned, but the Nationally-owned wildlife areas into the (SADC) region.

So, I gave a talk on this sort of topic for about ten years to students visiting the Southern African Wildlife College, and it was students from abroad - from Europe, from America. It's what I would consider to be the next generation of the luxury safari photographic market. And I asked them one question: if you won an all-paid expenses photographic safari to Africa, where would you go?

Now generally, I'd get around 95% of people giving me the same answer. I did a talk about a year ago to the International Veterinary Students Association. So, it's the whole world Student Veterinary Association. And they gathered in South Africa. They were 150 delegates.

I asked them this question, and I said, "Please stand up if your answer to your Safari of a Lifetime is not Serengeti System. There's a point, if you know where that is. That's up in the Kenya/Tanzania border, up near the blue Planet Earth. It's that little green area.

So, they're either going to the Serengeti, or they're going to Okavango System in Botswana, or they're going to Kruger Park. I had 149 sat down, and one stood up and he was going somewhere obscure in Uganda. And that indicates to you - and then I asked them a following question: so, if you're going to those three areas, which is - maybe I should stand up and point to where they are.

The (unintelligible), that's there. The Botswana system, that's there. Right up there at the top, that little green belt with the little blue, that's (unintelligible). And I asked them, you're all photographic safari-goers. How are the other areas going to generate revenue to sustain their wildlife and make the wildlife valuable and relevant to the communities in the county of those areas?

This is basically influenced by ease of access related to infrastructure, such as international airports, tarred roads, et cetera. Those are three areas that are easily accessible.

Also, regional stability plays a role. And then there's the marketing by the TV wildlife channel - NetGO and Discovery and all of that, and it's those areas that they're marketing.

And then there's the fact that the photographic tourist are (fickle), and they do not go to the back and beyond on safari. So, how are these other wildlife areas going to pay the bills and achieve economic sustainability? Sustainability. And that's when hunting comes into context.

The second reason why hunting is necessary in the African context is that not all habitats under wildlife is productive enough for other sustainable alternatives. So, here's an example. This is the previous system. And I don't know if this - yes, it's showing.

So, this is the border through the Park. You could it basically runs like this. You can see the border area going up there at Mozambique. And basically, to the right is Reserves in Mozambique. This is Kruger Border. (Gunner) is to the North of this, now. And it's going up. And this is the Kruger Border.

Okay, so if we start down here with the Sabi Sands area, we've put a productivity gradient based on soils and rainfall in this area adjacent to the Park. And productivity decreases as you go further north. So, the whole of the Sabi Sands can easily sustain a photographic safari model. You can do that. You can do hunting, do both.

Into the Manyeleti Game Reserves (sustain), and it's just the (Amakhala) (DARAZUVELA). It's actually in the National Park these days. It pulls into my (area). This is where I'm based.

Then you go into the Timbavati Game Reserve, and there you start to see changes, and you see that the photographic models are sustainable in the more productive areas along the major drainage lines within the Preserve. And as you move further north, you'll see, within those areas, suddenly the photographic models are replaced with either the hunting model or a mixture of both.

So, photographic safaris - lodges - do not, they are not economically sustainable because a basic sort of photographic safari operation in these areas, the concession is about 10,000 hectares of traversing. And within this area, there needs to be a (go and view) potential or a product to provide a sustainable experience to keep the tourists satisfied and coming back.

There also needs to be sufficient ground water, so in the dry areas you just don't have the groundwater. Remember what I said it uses? Sometimes up to a million liters per month for a 48-bed lodge. And you just don't have it.

So, the photographic safari lodge land use is not sustainable. Not economically, and it's not ecologically viable. And another conservation-based land use needs to be utilized. And this is these areas where they do utilize hunting because there's one person coming in - maybe him and his wife - and yes, it's just far less of demand on those other resources, like water. And then, if you look at the areas around the major reserves in Botswana, this example applies.

Let me go back to the slide. So, if you look at where wildlife occurs in Botswana in the reserves, and you look at it like that, wildlife occurs here. That's the National Parks.

So, in the National Parks, you've got the photographic lodges. So, when they closed hunting in Botswana - I think it was 2014 - some of the safari operators, likely (Ian Collier), his best areas, they just switched, and they build a photographic lodge and he has that today. Because it was easy enough. They had the game product. And they've got the water.

But the areas around that, they couldn't switch because the photographic tourists are not going to go there. So, today, a lot of those areas, there's still wildlife there. Communities have become disgruntled. There's no economic model around the wildlife, and you will have seen all this stuff. Botswana is intending to make some changes.

Some mostly good. There are one or two issues that I would challenge them on. But you've got disgruntled communities. So, in the past, elephants wandering around, they're raiding their crops. It was not a big problem. They would lose some crops, but they would gain some meat from the elephant hunt, and they would gain valuable revenue.

You stop the hunting; generally, there was no economic model, and now it's only damage from the elephant. No benefit. So, they are now, then - they are not in favor of having the elephant death. And that's a sad day, because then it's the wildlife that suffers.

Okay. So, let's look at the ethics of trophy hunting. So, the ethics is always the hardest one to actually break down, but we talk trophy hunting. Is it any less or more ethical than golf? And you could use any activity for that. Is it any more or less ethical than golf?

And it's all about the impacts associated with the golf course. When you think of what it is; of what it takes to build a golf course when there was once bush

there. You've got to remove the animals, the bush, you've got to plant the grass. And then you've got to use the herbicides to keep - the insecticides to keep the insects away. You've got massive water use. I heard some frightening figures about the water use on golf courses in Dubai to sustain them the other day. Yes.

And is it really any more or less ethical than golf? So, whether it's hunting for meat or the word, "trophy," an animal is harvested and dies. I think the word, "trophy" is inappropriate. It's once again that use of the word like "animal rightist." If you say to a hunter a trophy, he's got a picture in his mind. If you say to a non-hunter the word, "trophy," he thinks of kind of something like Usain Bolt won for winning the 100 meters at the Olympic Games - a medal. And he conquered something, and he competed.

Trophies are actually mementos of the hunt, if you look at it. That's what they are. So, the word, "trophy" is inappropriate. And the word, "trophy" is offensive to non-hunters. If they understood what it meant, it might become more acceptable.

Hunting is not a sport. We often called it a sport, but it's not actually a sport; it's an activity or a pastime. It's getting back to your roots as a human, and it's kind of primeval, in a way.

So, let's look at the - we've harvested an animal. So, let's look at the value of the Cape Buffalo's meat. Best case scenario, I could get you 10,000 Rands for that meat in South Africa. It's actually less; it's about 8000 Rands. So, I don't (see) a thousand years' (unintelligible).

So, if the Cape Buffalo is a trophy, it's 300,000 Rands. So, what's that? \$20,000 U.S. As the wildlife manager, which is what I am, would you prefer

under \$1000 or would you prefer \$20,000 to go ahead and provide value for your communities?

Essentially, an animal has died, but out of the trophy hunting example, I can generate a lot more benefit for society than I can out of the meat model. And at the end of the day, the meat from the trophy hunt is utilized by the people as well. So, you get your \$1000 U.S. to your meat as well.

But the real issue is whether the hunting is done sustainably and ethically, and whether the group will be regenerated from a dispense responsibly. Those are the big things.

So, now for all of us...

Man: Just a...

Richard Sowry: Sure.

Man: ...put things in context. It's about \$700 versus \$21,000.

Richard Sowry: Twenty-one, yes, seven, yes. That's a trophy buffalo hunt, but you'll see later we divide the buffalo categories up a bit more. But that's the primary. That would be what - the hunter would understand a 40-inch buffalo that would go for about that price, a trophy buffalo. But the buffalo meat, you wouldn't get the \$1000.

Okay, so to keep your good conservation model, you've got to have operating protocols. And for hunting and photographic operations, we have both of these. We don't hunt in National Parks in South Africa, and there's no hunting

in Kruger National Park, but in the greater system, hunting is part of the land use.

And we've been involved in the development of hunting operations protocols, and we've had for the last 20 years photographic operation protocols. So, how do you design them?

Well, basically, you've got to understand and figure out what are your economic, ecological and your social impacts? Then you've got to maximize the positive impact while mitigating and managing the negative impacts to ensure they all are sustainably practiced. That's it in a nutshell. And from that, you design a protocol, so you've got to list all of them upfront and then go about it.

To give an example of a photographic operations protocol, now when Kruger Park developed its second concession, there was quite a lot of opposition in South Africa by certain parts of society against the concessions model. Kruger needed to generate some more revenue to provide benefit and livelihoods in and around the Park. And they developed seven areas. And they went about it in a certain way.

This is the protocol. It was designed for a game reserve. And you can see, if you look at all the lists of the things, these are the activities you look into, and you go into understanding what are the impacts, and you mitigate them. So, they've got an operating protocol based on that. So, how do you do it for the hunting?

Well, same thing. Here's two elephants. You ask an anti-hunter - a non-hunter - which elephant should be shot - or member of society - which one should we hunt? Most people would say, "Don't hunt the one on the right. You need to

hunt the one on the left.” And here’s the reality of the thing. They are the same elephant.

(Bill Brewster): That one on the right, is that in Kruger?

Richard Sowry: Yes, they are both in Kruger. I’ll show you a bit more. I’m going to get on to it.

So, both of those, it’s the same elephant. That’s the growth curve of ivory on an elephant. You can see at a certain age, it’s got a certain weight of tusks based on the ivory, based on the center line. So, that’s how you manage your hunting, and you decide.

So, basically it’s the same elephant. The photo on the left taken in ’72. He was 35 years old. We know that because that elephant died in 1992 at the age of 55. So, that’s 20 years growth rate. On the left is probably about 65 pounds or more; 70 pounds of ivory.

On the right, I know is 160 pounds, the right tusk. In the prime of his life on the left, he’s not yet passed on any genetics, and he’s not maximized his commercial value. You’ll probably get those hunters used to sell for about \$80,000 in Botswana. And that’s not sustainable if removed.

Down on the right, it’s one year before he died. He’s done all his breeding; he’s passed on his genes. His commercial value just - and we can talk about this at the end of the talk - it’s over \$3 million U.S. dollars. And we know that through discussions.

So, here's our elephant protocol. I'm just hurrying up a bit because I've just been told - he's indicated five minutes more. Can I go on until half-past? Half-past ten?

Woman: (Unintelligible).

Richard Sowry: I think he's - yes, so I have 15. So, I can slow then again.

(Bill Brewster): No. I gave you an approximation of time that it's, but it's separated. No big deal.

Richard Sowry: You gave me a fright there.

((Crosstalk))

(Eric Alvarez): Excuse me a second, please. We have time to answer questions and answers, (Bill).

(Bill Brewster): We will have questions afterwards. That's why we wanted to...

((Crosstalk))

(Bill Brewster): ...about five.

Richard Sowry: So, basically, to design the protocol, we got to stick to that line we want to stay under. We don't want to hunt the more impressive guys when they're younger. So, we have categories, and both categories basically are on or under the line. So, we don't harvest the more impressive guys. We let them go on to become that. We would only utilize them when they were older.

So, you've got categories, 20-to-25 years old with a maximum of 25 pounds a side, and you'll see the top-end category as 35-to-40 years old for a maximum tusk weight of 50 pounds per side.

By the way, the average, based on this graph, for a 50 or older elephant in Kruger Park is 93 pounds. That's an average elephant, if it's 50 years old in Kruger Park. Just average.

So, in the statement that's made that these 100-pound, or the tuskers - the iconic tuskers - there are only a few in Africa, because there are only a few elephants of that age out there. So, if you want a big elephant, you've got to let them get old.

So, for each of these classes we assign dimension guidelines for the outfitters. The elephant needs to be viewed from all sides. Some criteria: you want them to walk the elephant to select the appropriate class, to permit them to drive the client and outfitter with the behavior and anatomy of the elephant, and you want to make it out; you don't want to go in the dark.

The protocol also talks to sustaining the experience of the hunt. We force them to do it properly so that it's a wild experience, so that you maintain your economic sustainability and the value of those animals. There are a whole lot of ethical sides to the protocol. Responsible, fair chase, and all of that. And there's a lot of that. We can go into the details. These protocols are available to you. I will give them to you.

Then, you've got a guide. We put guides to these activities. And both types of safaris require competent guides. There's a guiding standard. And there they are. We want experienced people accompanying these activities.

And there's some of the qualifications for the photographic guides. And then, to ensure that they did it all right, we audit both operations - both photographic and hunting. And here's an example of the photographic audit. This is the whole description of the audit process, the approach, who it get distributed to, if they've negative impact findings, what's important to address immediately, what can you address over time?

This is for the photographic operation. This is what the audit report looks like. The Cs are complied; NC is non-compliance. So, you can see, looking at stuff, like biosphere manipulation. They have wildlife management, capacity of guests, all that.

And then there's findings from the audit. You have the monthly report. You can see in the report there's water use there for some of the lodges. And then there's the summary. And they get a score. And you can see, over time, they work on the impact findings, and they improve the situation. There's also an empowerment report, so we understand the monthly financial contribution or where they're spending their revenue and what they've contributed to local social issues.

Hunting, same sort of thing. Report generated on where the revenue from hunting is. Every year when quotas are requested, this has got to be brought in. We want to understand where you spend your revenue from last year's hunting on issues such as wildlife management, counter-poaching, social initiatives and community benefit.

When a hunt takes place, we request certain photographs as evidence. The jaw bones are used to age the elephants. That's bottom right. We want to understand measurements of trunk (and tip). It's all valuable data that we use going forward.

Then they submit the information in this table form. (Advisors), we see whether compliance or not. We can see where the problems are. Here are some line examples. Same thing. Photograph on the top left, that's pre-hunt. That's the photograph, "Do Not Hunt" deadline.

And then the rest are from a lion that was hunted. Same sort of information. Here's a register. I've taken the names out for confidentiality, but of all the representatives that can escort a hunt with the professional hunter to make sure that they adhere to the protocols.

All the greens mean you're compliant with your theory to reserve representation. In the field, are you practically able to age an animal? It sits with the judging of the trophy. Do you understand when you're causing trouble by walking up to that animal or not? And then, also, they've got to do a shooting test. And that's basically the auditing.

So?

Woman: How is that - so that's personnel that are required to accompany them on a hunt, right?

Richard Sowry: Yes. So, we can do that in the questions. I was going to...

Woman: You're going to pull it there up?

Richard Sowry: No, I'm just rushing it in because I cannot - been up to it quite a bit. But we have a course that's actually presented by the Wildlife College. If you want to be a Reserve Representative, you've got to be employed by the Reserve because you're representing their interests.

Woman: So, my question was how is that funded?

Richard Sowry: The Reserve pays for it. So, they're getting the revenue from the hunting back, and they pay to send their representatives on the training. It's a training and an assessment. So, you will assess the ability of that individual, theory-wise. Do they understand the protocol? Do they understand what they've got to enforce on the hunt? What photos need to be taken, what data needs to be collected. The rest of it. Can they shoot? If things go awry, are you able to step in and assist?

Woman: ..just like a sense of resources in the cost of the hunt.

Richard Sowry: Yes.

Woman: Yes.

Richard Sowry: So, here's just an example economically what does it all translate to. So, \$15,000 buffalo takes about 12 years to grow, because that's when they've finished their breeding - well, not finished, but they've done most of their breeding. They breed from about 9 until 12. Once they've got a solid (bus). So, it take 12 years to grow that buffalo. You can generate \$15,000.

For an elephant, it's 80,000 to 3 million. No one's hunting 100-pounders. But the 3 million would represent that. It takes 50 years to grow that. One, and that's however you generate alone.

About 7 years you can grow yourself \$100,000 U.S. from a trophy free-ranging line. There's some photos, examples of them. That one, bottom left,

was actually hunted between Kruger and (GONNER-IZOR) a couple of years back. So, 120 pounds, that elephant aside.

And interesting thing with that is, straight off, these protests hit social media. They've gone saying, "I've shot a Kruger elephant." And that shot of (GONNER-IZOR) elephant. Turns out no one - they'd seen the elephant a few weeks prior to that, but the other 49 years of that elephant's life, no one had known this elephant. They couldn't identify him.

So, that wouldn't - the problem with that, that animal had generated \$50,000 U.S. I know from experience and understanding, and in asking what it would be worth to a trophy hunter, we could have got minimum of \$3 million U.S. for that elephant. So, there's the crime in that hunt. Not that you've utilized that, because he was not the bread and butter of the photographic industry. He was pretty close to his death anyway, probably a year or so.

It was sustainable. Except for the economic aspect of the sustainability. And then you've got to also ask yourself, where did the \$50,000 go? And we would have preferred it to be 3 million. Where was it spent? Was it investment in local communities? Good wildlife management and social initiatives and the rest of it?

So, using this process to analyze - I use it to analyze any wildlife management hot topic. So, in South Africa, we have the intensive wildlife breeding industry. That's where they're breeding for color variance of the different game species, and the canned lion hunting would fall into it as well.

So, we use the three conservation principles. Is it sustainable in offtake, that? Yes it is. They bred it - it's (put and take).

Is it ethical? Well, it's not natural by design, and it's playing God with nature, so you can't tick that box. It's intentionally breeding for characteristics that did not add to or enhance a species' chance of survival in the natural and wild environment, and it's not allowing for the selection of the fittest genes to breed. So, you can't tick that box.

To facilitate this intensive wildlife breeding industry in South Africa, individuals need to be doctored and manipulated to the extent that the meat is often so contaminated with various drugs that it's not fit for consumption after the animal is finally harvested. Can't tick that box.

The economic sustainability of the industry? Well, whatever color they are bred for, it's bred for canned shooting, simply. It's not hunting. And it does not subscribe to the sustainable principles of fair chase, and yes, it generates revenue short-term, but will it be sustainable? And we're already getting the answer to this. It's no. Industry is not growing; it is collapsing. Because the experience associated with it is not sustainable.

So, what about the intensive breeding of buffalo, say, well, in those species in South Africa? Well, this can be justified if one accepts that South Africa's wildlife estate is in a state of rehabilitation in certain areas. So, for this business, we can justify if these animals are re-wilded. And that's just simply using those three principles, interrogating the industry, and you come up with those answers.

And that's it. Thank you.

(Bill Brewster): Okay. What I would like to do, if the Council agrees, is bring our next speaker up. We have a 30-minute time frame at the end for both Richard and Kurt to be on the Panel. So, if you would hold your questions until that time. I know I

have a few questions. Probably everybody here does. But if we could go ahead and Kurt's presentation, and then do our questions for Richard as well. Agreed? Okay.

(Eric Alvarez): Mr. Chairman, if I can propose a five-minute bio break so we can load up the next presentation.

(Bill Brewster): Okay. Richard, you made a great presentation. You've given us a lot of things to think about. And don't wander far, because we'll have you on a panel to answer questions in a few minutes.

((Crosstalk))

Man: I know 3:14. The only one on this call...

((Crosstalk))

Man: Here the presentation can watch you. And I just sent you email to the Richard's presentation. So, if we can get that done.

((Crosstalk))

Man: Ready, (Bill).

((Crosstalk))

(Bill Brewster): That'd be good if we could get you all headed toward your seats here.

((Crosstalk))

(Bill Brewster): Hope the group on the phone are still somewhere near the phone. We are going to try to get started again. For those in the audience here, our next presenter, Kurt Alt is with the Wild Sheep Foundation and is going to be talking some about all the initiatives that the Wild Sheep Foundation is doing.

They have put sheep on the mountain in many, many places where they had gone extinct or had a very small population. And while they focus most of their attention on the sheep, goats - everything in that realm - almost all of their practices are important for all wildlife. And it's quite a pleasure to have him here today.

But I also want to mention for the afternoon, we have great presenters, in that we have Hannah Downey with Property and Environment Research Center. We have Corey Mason, Dallas Safari Club. And last but certainly not least will be Peyton West with Frankfurt Zoological. As all of you know, Frankfurt does an awful lot in Tanzania, Zambia and Zimbabwe. So, we've got some great presentations coming up. And at the moment - yes, (Eric)?

(Eric Alvarez): For the folks on the phone, I just emailed Kurt's presentation to you all. It's a PDF. It's about 4-1/2 megs, so give it a second, but you should be able to follow along, ideally.

(Bill Brewster): Okay. And without further ado, Kurt, the program is yours.

Kurt Alt: All right, first of all, thank you for inviting us to present our program. I am the Conservation Director for Wild Sheep Foundation for Montana and International Programs. Why Montana? Because I spent 35 years working as a Wildlife Biologist and Wildlife Manager for the State of Montana.

International Programs, I took advantage of the fact that my wife is stationed in Germany with the military as a teacher. So, I spend a lot of time hopping back between Central Asia, Germany and Montana, and now Dallas.

I want to start by simply - I want to spend real time talking about our Central Asian Conservation Initiative. Focus a little bit on Kazakhstan and our Sustainable Use Initiative there. And then broaden back to a couple other fine points.

So, with that, (through) Wild Sheep Foundation, we have a long mission statement like all organizations. Or, more than one line, I should say. But it can be summed up as, "Our mission is to put and keep sheep on the mountain."

We operate off partnership. We have a really strong - probably of all the things you (know) and like Wild Sheep Foundation in North America, our relationship with Western Association of Fish and Wildlife agencies primarily led by the states and provinces is really close, and we are a member and actively work with the Bill Rouse Sheep Working Group.

We're a member of the IUCN. We're also part of and active in SULi and I personally have also presented for in another group, Sustainable Use and Management of Ecosystems (unintelligible). It's (under SULi) under a different commission.

We have an MOU with the Prairie Club International Foundation - we consider them a close partner and in all we do - and federal agencies. We just signed an MOU with Rob Harper with the U.S. Forest Service just about two weeks ago on that formalized and in collaboration.

I think one I'll go through next is we developed the - we call it International Conservation Vision 2025 Conservation Strategy. It's really - this is our first document of this nature, and it really focuses on Central Asia. And so, if we're going to call it - I'm going to pretty much talk about the Central Asian Conservation Initiative for a bit.

So, what's it about? It really - in a nutshell, it's about creating ownership in conservation through sustainable use and enhancement in Central Asia by people in Central Asia, like people that live there. So, it's community, it's citizens, it's government. That's, in a nutshell, that's at the foundation. That's what we're trying to do.

It's science-based. It's based on science; good information. If you want to find it, it's on a Web site for anybody to look at. I don't have to write down this for the Web site, but you can go to our Web site, the WildSheepFoundation.org. Look under Mission and Programs, and you can find it.

It contains 12 - we're calling them enhancement goals, program elements. We weren't quite sure what would be the right verbiage, so we double-named it. So, I'm going to go through the pearls.

Number 1 is we're working with IUCN and Species Survival Commission (Cabinet) Specialist Group to actually try to help sponsor species, facilitate species assessments. It's in (Capital) worth, one of our elements: Built-in country ownership and a political role of stakeholders.

If we're going to create something that has any long-lasting potential, there has to be in-country ownership. They have to own it. So, and that creates the political will to have that survive.

We're looking at some basic biological stuff. Establish Wild Sheep and Goat Monitoring Program, Population Monitoring Program, science-based sustainable harvest, legal harvest expectation. And that has to do with harvestry, if in different populations. It also has to do with dealing with illegal harvests.

We, in North America, have adopted a horn-plugging program for wild sheep; specifically, wild sheep from Alaska all the way into Mexico, and so any ram that's legal that's been legally harvested has to have a plug. It doesn't have a plug cored into the horn, it's not a legal animal. And so, we're (out there in there) trying to expand that into Central Asia on certain key species to help halt illegal traffic into countries and certainly between continents.

We also are working at supporting funding ways to (fund) seasonal habitat use of population movement patterns, habitat conservation management and half those strategies we're looking at developing those further.

Part of that is it's a - there's a lot of grazing that goes on there. I particularly have a strong interest in livestock grazing. As a wildlife biologist I managed four wildlife management areas in Montana through winter ranges that have livestock grazing systems on them and a fourth one that was high-elevation (unintelligible) on the far range for all species of wildlife.

So, we have potential to do some rural land enhancement programs in Central Asia. To view the monitoring is a big one with us. One of our biggest patterns in North America, recovery of wild sheep, continued recovery is disease. It's one of our problems on and in Central Asia, there's some serious diseases.

I think there's a ratification effort. There's a desert (nomadic). And we'll be involved with monitoring diseases. Genetic monitoring is important along the

(growth). There's a lot of different subspecies that have been called subspecies, maybe more because of morphological (appellage) colors and not historic genetic differences. That's what we're going to try to have clarified with our (PRAT) program.

And then this one, this is a unique one to our program. And it's basically developing a country-specific, species-specific conservation management - management fee to help fund these programs. It basically (nears) the auction licenses of North America, and I don't know how many of you are familiar with the auction licenses that most states and provinces provide or auction, have us at our sheep show auction off their governor's or state auction permit.

And essentially, that's on-average, across the states and provinces, that provides almost 40% of their state/provincial budget for working on wild sheep and we can call it goats, if you will, because oftentimes they use it interchangeably in wild sheep and goats.

And significantly, 74% - so not just the auction takes, a lot of states have lottery takes or auction - or I should say lottery takes, super takes, other rapid opportunities that write a higher price than just putting in an application.

And so, between those two, what I would say, primarily, one non-resident generates enough dollars in one revenue generation of dollars, above and beyond the general license fee. It's about 74% of a state's budget to work and to recover those species comes from those two activities.

The other 25% is the general license fee. And if you look in that upper right-hand corner, what that's funded is the restoration effort of - this is just Rocky Mountain bighorn sheep in North America, as you go from right to left on that

slide, right is about the 1930s; left is today, in terms of distribution of wild bighorn sheep in North America. That's what those dollars are funding - a continuing expansion restoration.

I'm sorry; it goes from left to right. Left is pre-settlement estimates. Right is where we are today, middle is about where we were about the 1950s. So, distribution has expanded, if you really look at a small map of what's going up. It's gone from about 20,000 - we're about 80,000 bighorn sheep in North America. That doesn't include (Dollar) stone sheep, but it's been a pretty significant restoration effort, but we're not done.

Just as an example, it happened both a public land state and private. Montana is 70% private land, and those funding mechanisms, the proportion are the same, whether it's a public or private land state.

Another unique aspect - so conservation management we're developing for Central Asian countries to do just what we're doing in North America or what we've been doing. Another one of the short-duration manager-to-manager exchanges. We feel this is really important. It's the best way to exchange on-the-ground management information with people that are needing that information. Publications, scientific journals - it's okay. But direct on-the-ground manager-to-manager exchanges is what this is about. Another unique part of this program, and it goes both ways.

So, when we say short-term, we talk about think about two weeks, but two weeks, not just this year, but next year, and the year after, and on into the future to help develop capacity.

Another part of our strategy is populations increase. We'll continue to advocate for sustainable harvest opportunities. Certainly, working with international trade societies. A similar focus on U.S., EU and Central Asia.

And the last point is another very unique part of our strategy. Basically, we will support and actually find a way to help develop capacity in citizens hunting where countries are looking for it.

Now that's not happened. It happened to have citizen hunting. It's not just about the money. It's not just about a lot of money coming in from a non-resident. It's also about those people having value and a resource that they actually get to see that they can actually go shoot and eat or put in their home. It's both resident and non-resident.

That's near and dear to me, because Montana is really like a developing country within the U.S. You know, over 50% of our operating dollars in Montana Fish and Wildlife parks comes from non-residents. But (without) residents -- they're the ones that vote for legislatures -- we would not have the program that we have in any of the states. So, that's part of our - that's something I don't think any other organizations been looking at as strongly as we are.

Okay, another part, we want to host the (unintelligible) Conference. This is a very prestigious conference. It's never been held in North America. It's September 10 through the 15 in Bozeman, Montana. We're hoping to have the US Fish and Wildlife Service participate in a session on policies, lives, and societies.

We're hoping to have Yellowstone National Park be willing to host a tour of the Northern range of Yellowstone, which is - traditionally that's Fish, Wildlife, and Parks and Yellowstone Park Initiative.

This conference is endorsed by the Cycad Specialist Group under this PC Survival Commissioner of IUCM and the primary financial sponsors are FCI Foundation and Wild Sheep Foundation. We like Bozeman. Bozeman is our World Headquarters. Somebody asked us if we would host it, somebody said, (unintelligible) no, we have it in our home, so.

I want to narrow down on the Kazakhstan program, I call it cognitive and conservation program update because it's really only been running since last August. We have (unintelligible) mine, I'll get into that.

So five species of wild sheep in Kazakhstan. Some numbers are the Karaganda, the Argali is the largest population size. It's crossed out and these aren't continuous populations. Incidentally, you can see a web distribution map.

Project elements completed by the Kazakhstan's today, not by us, by them. First of all, they put together an MOU and that MOU is between the Wild Sheep Foundation, FCI Foundation and with Kazak Tourism. Under the central region conservation initiative, the Umbrella, that's the conservation driving part of this program, as well as the actual MOU talks about conservation first.

So basically developing a biologically based justification. You're looking at other sheep populations, the distribution, mapping them by units. They're going to look at what the potential is for sustainable harvest and that will guide a potential funding opportunities or expansion of funding opportunities

in Kazakhstan. And that included discussions with the Ministries of Agriculture, on Tourism and Culture in Sports and under Agriculture as well as in Forestry.

I might go back - and basically, we have gallery permit. The person who stepped forward, he purchased those, he gets- sometimes he may or may not get them out of the country unless dollars change. He hasn't hunted. His motivation isn't to kill a (unintelligible). His motivation is to provide the funding source to then exemplify what sustainable youth can do with the restoration. Now he may choose to hunt, but that's not as driving motive.

16 - 16 for TV programs, I bought this conservation initiatives in sustainable use in Kazakhstan. So part of this delegation that we're working with to have a videographer that posts and makes movies on their Outdoor Channel. And so he's been documenting what we've been doing from the very beginning with us and the FCI Foundation.

A lot of those videos talks about Federal Aid and (Pitman Robertson) that actually played on Kazakhstan Outdoor Channel and several members of their Parliament are interested in trying to develop a more stable funding source within country. Not just on their residence. Let's see where that goes.

Submitted recommendations to improve trophy hunting legislation. What that is looking at, it's about their own in-country ability to provide opportunities for non-residents. And then identified model areas for the first phase of the program. Model areas where the monies can be generated from limited non-resident hunting to help pay for some program's country.

So today's field reviews, we've had two reviews hit last May. We were at a key meeting with IUCN in Bishkek last September and then went on to do additional fields reviews in both Kazakhstan and Tajikistan.

We split our forces. Part of those was (Joel Grogan) with FCI Foundation and (unintelligible) for the Bishkek meeting. To go out and in those field reviews, we're constantly meeting with government officials going from one place to the other and becoming - being out, looking at things we're supposed to be looking at.

On the ground actions, today in Kazakhstan, last November three on the ground surveys were done in three different geographical areas. This the first scientifically, repeat a bit, surveys that had been done that at a place that had been awhile, maybe 20 years or other. These surveys will continue and be expanded and there's a report. Right.

Hands-on necrop training. Again, we're talking about disease right now with Dr. (Bill Wolf) who's wild life vet for the state of Nevada. And the necropsy - is the wildlife vet for the province of British Columbia provided hands-on training of doing necropsy of the wild sheep just this last February. And the videographer was there - yes, yes ma'am.

Woman: I think we're missing part of the story if you don't say (Perry's) whole first name.

Kurt Alt: You're right. (Unintelligible).

Woman: Was she not born to be a wildlife veterinarian?

Kurt Alt: (Unintelligible) really well known, great... We're real fortunate that - actually (Perry) is on our board of the Wild Sheep Foundation and Helen is on the Professional Resource Advisory Board.

So our relationship with States and Provinces, if that doesn't talk a little bit to how close that is with our organization - it also plays well from manager to manager changes in the future.

And then also an instructional video. We developed an instructional video for the unplugging how you do it. Why we do it, how it works, why it works. And we had it translated into Russian because no single Asian countries there - because they speak - they're dialogue - dialects - but they also speak Russian. So we had this translated into Russian language as well and that was provided at the Bishkek meetings to all the Central Asian range states that were at that (unintelligible) meeting.

Actions for the spring in Kazakhstan. So we're just starting. Kazakhstan is finally Kazakhstan Wildlife Foundation. That's significant because this becomes an in-country interest, that's going to help make sure dollars go to the right places.

It will be an affiliate of (Wild Sheep) Foundation. Much of the dollars will through to us and go to them and direct to on the ground projects. That's how it's happened this last year.

By the end of March, we will have a nap about our populations with numbers. They'll have a - maybe a suggested permit distribution, but they're not looking at anything more than 2 ½% harvest off-take off any one population.

In North America, we look at 4% off-take. That's been guiding our conservation restoration programs. So they're at lower than that. And there'd be some places where there wouldn't be any potential because populations are maybe five PC's to smaller or they're just not there, so.

And then we think we'll be doing another repeat survey for the fall, this spring in Kazakhstan. And at this point - I go to thank Kazakhstan little bit because they're a great partner.

On our gallery sheet on the upper left, Astana is the capital of Kazakhstan. When Kazakhstan got their freedom from Russia. They created their own capital and it's one of the most modern cities I've ever been in but culture of Kazakhstan, I didn't know they had high horses. That's what they told me they call them in English, Ibex horses. They're custom of putting Ibex horses, as headgear. So they call them high horses.

And then you know, like in North America, they have a full suite of carnivores. This happens to be Eurasian lynx, which is about 30% larger than any lynx we have in North America, huge cat. They have brown bears, they have wolves.

Here we have this landscape over here near the left. That's your landscape, anyplace in the west, it almost - you could almost see the same thing.

Here on grazing practices are our (unintelligible). There's no thought about grazing management in the context that we in North America think about it. And so they're really interested in looking at the potential to change grazing practices or modify them as it relates to key villa ranges on the sheep.

And in fact, we talked to a couple of the lease holders and they're very interested. No different than what we might do in the US with the modification. Not to beat them out, but to work out an agreement that it makes sense to them. Whereas a rotational pattern, a delayed grazing, or maybe even a movement of sheep, domestic sheep, or domestic horses, to a different place.

In this last one, I guess that's two now, this is something that - it's kind of how I look at things. And I think how some of the people in the (Wild Sheep) Foundation and I certainly know that (Matt Eckert) looks at that looked at it this way. This comes from - I've had some significant experiences with my five-con. East Africa, Argentina, Russian Far East, Central Europe and of course North America. And I tried to think how can you display something? We know conservation works. What does it look like? What are the elements?

So we know that - also you need to have a sense of being called managers, people of the country. In hunting, is involved with successful conservation program I've seen in my travels, in my work. It has to be meaningful that - call managers, that people tie, that connection has to be meaningful.

It can't be from looking at wildlife across the fence. It has to be meaningful. It's a sense ownership by the people of the country or jurisdiction. That basically allows them or encourages them where they basically want to take care of what they have, creates that political will. It has to be finding it's hunting licenses, hunting license revenue, PR excise tax but needs to be a reliable hunting source. Needs to be sustainable kind following sustainable use language that we all use today.

When you have those three things. You are developing a cultural and institutionalized conservation ethic that can survive. Not go from political

regime to political regime. It can survive. It survives at the state level. It can survive at the country level.

And then this is my favorite picture from Kazakhstan. You talk about people having access to their resources. Any place you guys have ever been, the only state you're from, that, you know, a picture of a couple of boats out fishing? Some (unintelligible). This is just outside of Tersakkan River. Was this walking down along the river and they'd ridden their bicycles. I don't know how they rode their bicycles with those 15' long poles, but they did. And they were baiting hooks with worms and (unintelligible) in Kazakhstan they are tied to their resource. I want to help find ways to strengthen that community, that citizen involvement.

And I think of that, I think people - I think a message that we send in our programs is people need to have access to their resources. Whether from North America or any place else in the world. If they don't have access (unintelligible) to create conservation programs.

So with that...

(Bill Brewster): Thanks Kurt. Very good presentation. And so some of us - some areas that we have not been to - had the privilege of be in Kazakhstan. I know several of the room have, quite a lot of them.

What you guys are doing there is extremely important and showing the local people the value of the animals will keep them on the mountain. So a great presentation.

What I'd like to do is ask Richard to come up. Both of you serve on the panel, if you would, I asked a moment ago if our council and our guest on the State

Department and from Interior if they were no other questions till now, so if I could throw the first question. At first, we're talking about land use, photographic, hunting, sustainability - a great presentation by the way covered a lot of ground.

I think you said that about 95% of the photographic safaris, were in three areas, in the Serengeti, in the (unintelligible), and in Krueger. That would probably make up what, may be 1% of the land?

I know Africa is three and a half times the size of the US. And we think of the US as being pretty big when you're trying to go from New York to LA, but it wouldn't be much of a factor in Africa.

Move many of the places then for an animal to have value, it's either going to be valued through money or it's going to be valued through the meat and being sold as fish bait. Other than projecting that the animals don't die either way. And you can get a - sustain a pretty large amount of money plus the utilization to meat through the hunting process. How would you - how do you characterize it to the rest of the world?

Richard: Just want to correct something. So I said 95% of the areas, I think you misinterpreted it all photographic. What I was saying was to photographic go as well, where would you go? So what I was trying to illustrate there was that that's what they're choices is, those three main areas.

So to generate revenue, which equals benefit to the other areas, we are going to have to explore other land use models, where hunting comes in. On that I would like to - which slide it is, it's down here somewhere. If I show you this map - where are we? This map here. This is pretty interesting.

So if you look at this area, so in South Africa, how wildlife land use, that small area there is Kruger Park. That's two million hectares and one over there, which is three provinces in South Africa, there's at least six million hectares of land and the wildlife. Which tells four million hectares is in private hands outside the national park. And it's important for those people to be able to generate up. Otherwise the land use will change from wildlife, which could be hunting or photographic, it will change to something else.

And at the moment that land use, specific to use in wildlife is hunting. Because the photographers are going to the Kruger Park, they're not going to the other 4 million hectares. So if you want to keep the land use wildlife, you are going to have to tolerate hunting. And then we talk to responsible hunting.

Very good. Question from the council?

Man: Richard with respect to the profit and loss approved rooted rate, approved to the area. So, up - I think there's something like 14 national parks in Tanzania and Serengeti is the only one that comes close to paying for itself. And I'm curious, with respect to the other protected areas in South Africa, how much revenue did they get from the general funds in the South African government? Do they operate at a loss and does Kruger operates at a profit or a loss? And how is the revenue generated for the Kruger system?

Richard: So the Kruger System, the park itself, which is just basically that. The guns are the profits, it's generated to photographic, different scales of photographic, from the luxury model, to the self-drive. Next to the trigger, it's photographic and hunting.

So in an open system, the hunting is a land use, but it's more responsible engine, based on the principles I explained. This part in Mozambique that's photographic, but it's running at financial losses.

It's not providing sufficient benefit and they're going to have to look at that. So basically trigger generates a profit. The other national park in South Africa, 200% on the fact that generates profit is Table Mountain National Park. But those two fund the rest of the national parks and the funding is very important.

If you look at specific country to country, if you look at - t's very different in Africa to United States, we've got this big difference between first world and say Third World. In the first world countries you can afford to keep on the National Park because it's it, I can think of the word I'm looking for, but socially it's providing esthetic values to society. In Africa we need economic values to that part. If you ask someone living outside on the border nowadays, there's millions of people living in these areas adjacent to Kruger, what's your benefit out of Kruger Park? It's particularly important that they're able to identify something. If they don't, you've got a problem.

And in those areas, they're not going to say, oh I went on safari there. They're going to say my brothers got a job there. And there's an out-reach program from some of the management where I've got some meat, or I run a photographic shop in the town and the tourists come to me.

So that's - to them revenues is key there. If you haven't got photographic tourist, I hope you've got hunting tourists, otherwise it's going under. Yes, no future. Question, (Julie)?

(Julie): (Chris) So, did you (unintelligible) I've not been to Kazakhstan. Did you mention (unintelligible) did it happen there or does it only affect (unintelligible)

Man: Community based conservancies in our RSMTP base operations, Tajikistan, where they're trying to use hunting revenue to build hotels, to hopefully attract more non-hunting interest, but they couldn't do it without hunting in Kazakhstan. There is not a tourism sector built up in that in that way. Not to say that there isn't good, it's not a prominent part of our discussions or hobbyists in their programs at this point.

Other questions? (Brad)

(Brad): Yes. The estimate of \$100,000 for seven years for a lion, that's valuation. Can you explain that please?

Man: Okay. So if you go to the seven years of a lion, so in our protocol on lions, one of the stipulations is --I think it actually says it talks to a six year old as long as it's not a pride member, but, so I prefer to get up to seven and eight -- that the last wild lion and into areas goes for about a \$100,000.

So in the neighboring reserve to me that's about what they sold it for a \$100,000. And I think it was about an eight to a nine-year-old lion that was harvested in the hunt.

(Brad): But then it's not hunting value. What does this compare -not hunting value?

Man: Well that'll be difficult to determine. But in that same game reserve, there's a whole lot of photographic lodges and they viewed that lion. So they're actually, they're doubling up. So they've used that line for its entire life from

born as a cub, if it was born in that reserve, 50/50 chance on that. But they viewed that it's whole life, up to seven by the photographic lodges generating revenue out of it. And then when it was time at the end of its life, and it got harvested, they generated \$100,000 US dollars for it. So probably \$200,000 US at least.

Kurt Alt: Well, what we're finding is when you set an age limit on lion hunting as a profit, as a trophy animal. The every hunter doesn't get one at six and seven years old. So we have a situation in Tanzania for example, where it's 20 hunters go before one lion has taken that feature, hunter pays \$150 to \$175,000 each, to over \$2 million per lion, which may be an expensive by the hunting community for one single lion.

Man: Well let's use this example and this and it wasn't for the hunting of that lion, those areas, if you analyze them, you're going to see there's no photographic going on in there. So it's \$200,000 or nothing there. It's probably \$200 for both. Yes. (Andrea)?

(Andrea Trapich): Kurt, just one follow up a little bit. I know you had mentioned your conference coming up in September. Just however I can help from Fish and Wildlife perspective and the National Parks Service. So you and I can talk afterwards. Glad to follow up and appreciate the comments on conduct. Stan as well. Coming from North Dakota, we had started looking at different opportunities there related to the agriculture industry. So just interesting to hear from this perspective. So thank you.

Kurt Alt: You're Welcome.

Man: Other questions?

(Bill Brewster): I actually have one more question for each of you. Kurt Other than human predation. To what extent is animal predation a problem in Kazakhstan to Tajikistan, I know they have wolves, I know they have ferrets, is it a big issue? Is it a small issue?

I know in Oklahoma we're having a heck of a problem with coyotes, so the destroying fawn crops of deer. I'm just curious how much of your problem is human predation? How much of is animal?

Kurt Alt: I think it's a real good question. Just a bit of background before I answer it. I wrote a predator/prey idea review, (unintelligible) international supported. (Unintelligible) and it's called Wildlife on Wildlife. (Unintelligible) when I worked, I had two wolf specialists, two grizzly bear management conflict specialists, and also (unintelligible) cougars, lions and coyotes. But these were federal agencies.

But in Kazakhstan there is predation, by snow leopards, minor issues. Wolves can be, but I look at - when I was there, they kept seeing if it's a poaching, poaching, poaching, and by the time our first two weeks in the field might be dog predation or sheep herder predation, dogs with not just the sheep herders, but the cows.

They're very animal law - practices are a lot different than us in North America have dogs because they have -they also have brown bears. So where we were was - and so it can be an issue, but it's a pretty small amount in generally.

There may be specific areas where predation is having an impact on a small population, but they harvest on regular basis. It's not a taboo in their culture, their society. So I don't think predation being the issue, I really see our authority to do habitat enhancement could be huge for expanding populations.

(Bill Brewster): Okay. Thank you. Richard. In your presentation a while ago, as I said a while ago, was excellent. You mentioned that you didn't like the term trophy associated with winning. Yet, it's difficult for any of us to talk about it in another term. I noticed then when you had the lion, the buffalo and the elephant up, they're referred to trophy. And it almost seems it's easier, not easier, but for all of us ultimately, we have to define what trophy is.

We have to redefine it in the minds of the populace. If we have to explain that's an old animal. It's past his prime that it's been kicked out of the herd. It's no longer a viable animal. And that's not what the public currently looks at it but golly, that's the way all of us that are involved in it, try to work it.

How do we do that? How do we explain to the public what we are hunting and that it - truly defined trophy as we see it?

Richard Sowry: And thanks (unintelligible). It is exactly that. It's PR programs. We have to go about it. We are guilty of assuming, because we use a word, and there's many there, and even the word hunting is misrepresented.

You've got a guy - look at that - the person in the corner of the room that, like my mother, who doesn't. And (Oscar), when I say hunting, what do you mean? But today she understands what is hunting. And if someone says hunting, she asks questions. Were they hunting or were they shooting or harvesting or whatever? What kind of - because it's all different.

And the same goes for the word trophy, we need to define it. When you go into the dictionary you get trophy. And then you get to the same (unintelligible) medal and then you come down and you get to trophy, memento of a hunt, i.e. an old animal, sustainably harvested. If you cue that.

You know, but it's PR and in South Africa we've - there is a lot of fire now from anti-hunting groups against hunting. This previous year we've seen a lot of this. And as a wildlife manager it marginalizes my ability to give the wildlife value bottom line. So wildlife will be the loser if we don't use it. And we are losing the fight and I see it's turning. I see it of late. We are starting to talk more.

For example, the reserves that are hunting next to the National Parks. A year ago you went onto their Web site and you would just see the size of the reserve; who works there. Now you go on there, you see the full year's quota for hunting, where all the money from hunting is spent, where all the money from photographic tourism is spent, how they do everything in that game reserve. It's all there.

For the anti's, we're saying, you know, they think they got under snippets of information. Now it's all there. There's nothing, we're not hiding anything. And they thought we were hiding. We're not hiding it. It's just there's so much, we were not communicating and you see it turning. So I think through communication is how we need to do it.

(Bill Brewster): Okay. Thank you very much. Let's see, we've got a few more questions down here, let's say (Chris) first. He (unintelligible) just before you, (John).

Man: I have a messaged for Kurt and I'd like to ask you to speculate a little bit on what would occur if you had Fish and Wildlife, say they were to ban the import of Argali trophies from Kazakhstan. Or decide they were to eliminate the harvest of the trade in those species, what would happen to wildlife efforts in that country? And then what would be the following consequences in your

opinion to the wildlife there and the local community that you've been working with these past few years?

Kurt Alt: There would be no program in Kazakhstan. There'd be no way to fund it. Our burden to help, you know, we can help would not be there. The country itself would not be directing funds or interest towards - it'd be like - he manages the giant park throughout, cheaply but our gallery has been closed to hunting here in Kazakhstan for 15 years and they don't have any resources.

They can't generate resources to put back into our gallery. The first pieces of our gallery are on view and so that's why they're looking again at changing it up, developing a sustainable use concept around what we call the Conservation Permits. (Unintelligible) program.

Richard Sowry: Everyone's got an answer? Just at the beep.

(Bill Brewster): We'll get through in a moment.

Richard Sowry: Oh, okay alright, I just want an alternative to that. Alright sir, so what's happening in Africa where the import of elephant is banned like in Zimbabwe, the first line down is there's no anti-poaching being done, because in those areas it is being paid for by the hunting revenue. The hunting revenue is not coming in, what's left? It's actually not coming in. It's coming in but it's off. So where do you cut down anti-poaching?

If we ban things and hunting gets marginalized in areas around the park, how are they going to do it? They're going to cut back on anti-poaching. It will be the first because it's the biggest revenue user these days. So that'll be the first to go.

Kurt Alt: Can I expound a little bit more, too along - (unintelligible) agriculture is huge impact. I don't mean negative or positive, just a huge impact on landscape. It

produces our food and if you can't create programs that work with agriculture interests for conservation, you're not going to be successful.

And so in Kazakhstan, the long thing is those leases are agricultural leases and there's lot life leases. And this program is going to help those with lot life leases work with their agriculture and forestry counterparts, to actually do habitat improvement, habitat enhancement.

So that's also dollars. They have nothing to offer hope to people in agriculture in terms of the (unintelligible) incentives). (Unintelligible)

Man: (John) and then (Rowena).

(John): I liked to explore more about what the Wild Sheep Foundation stands for as a hunting organization. Let me explain I may explain myself. There is a perception among the uninformed, some people take advantage of, that hunting is counter intuitive. That's what I'd like you to do address a few minutes.

Wild Sheep Foundation is, I consider it the Ducks Unlimited of the sheep world. It's responsible for the survival of most wild sheep in the world today. And as all the hunting countries, of elephants in Africa and the rhino and on, and on, and on, the lion, and so on.

So to me that the hunting is the paradigm of conservation in America and the heritage of conservation in America. What was your feeling? How do you express it? In your name, you say, the mission of the organization is putting and keeping sheep on the mountain. Now isn't that - doesn't that contradict the idea that it is counterintuitive. That sportsman, the hunters of America the heroes of sheep conservation.

Richard Sowry: How would you see it this way? Our mission. When I talk to people, I said, okay, what we do is we do conservation. And sustainable use or however you want to phrase it, is the way to pay for it. It's the only way. There is no other way to provide suitable, stable, funding sources, for conservation of species like sheep or any of the other species we're talking about, without revenue from hunting. So we do conservation, hunting is a way to pay for it. We do support the hunter's role in that conservation, strongly. Does that help? Does that answer - you might get into what you're asking.

You are a hunting organization and you are a conservation organization, but it's all conservationist.

Richard Sowry: Yes. In our mission - if you need our mission statement, we talk about conservation science-based foundation, but I also support the role of hunting in a conservation community, in a legitimate role. That's how we play.

(John): Ducks Unlimited has 750,000 members and a million and a half, \$150 million a year budget and say 13 million acres of wetlands. They're the foremost wetland conservation organization in the world. That's hunters. You are the sheep hunters of the world; keep on the mountain.

Richard Sowry: You know, the way I like to say it and so I usually talk about this in one on one with different people whether they hunt or don't hunt. And I like to say, what should we chase conservation?

We don't chase permits because you know what, you have a conservation program. The opportunity to generate revenue through hunting, revenue whether it's resident or non-resident is there. If you have a good conservation program. If you don't have a good conservation program, you won't have that.

You won't - that revenue source won't be stable. So we chase conservation and it's always going to be there. We don't chase permits.

(John): Thank you. (Rowena).

(Rowena Watson): Thank you both for really informative presentations. I have two more questions for you, but I'll ask them (unintelligible) but my question is for Kurt about snow leopards. The State Department and USAID partners. We've worked quite a bit with that legion and the government of Kazakhstan, especially with snow leopards and especially being the big iconic species.

I'm just wondering if, in your work with the government or with the people, you've had any interface with the snow leopard conservation topics?

Kurt Alt: Well absolutely, you know, it's been an interesting year for Panthera who legionnaire on the snow leopard side. They were kicked out to Tajikistan. I won't even get into that one because I just won't go there. But they're still active in Central Asia. Put it this way, what's good for our kind of sheep is good for snow leopards. It's just that simple. And there's no reason - and what's good for hunting - the opportunity to generate revenue to grow our gallery sheep is good for snow leopards.

So people who love snow should snow leopards and want to support hunting, aren't helping - or oppose, you know, sustainable use hunting practices, community or citizen based, or non-resident based, aren't supporting truly aren't supporting snow leopard restoration.

Richard Sowry: Can give you the African analogy of that one. And it's exactly what could save. So you need to go to Kazakhstan or Tajikistan and ask the people there what is sheep to them. I don't know, but you're going to tell me and they get

to say how many thousand US dollars and you're going to ask them to say, well what is a snow leopard worth to them? If you want to understand that those two species are going to survive.

Now if you get the answer, the argali sheep is worth \$5,000 US and you get the snow leopard nothing, but it kills our goats and our livestock. So it equals a negative on your balance sheet, you've got a problem because they're not seeing positive out of snow leopard.

So South Africa the lion what it can be worth in the wild, free range, hunt to the game rancher. Why then alarms on the extensive game ranches in South Africa, it's simple, one lion eats about one impala per week, one impala is worth \$1000 rent to the game rancher, that's \$52,000 rand a year (unintelligible).

Lion prides, lions don't come in ones, they come in prides. So that's a minimum of 10 that's \$500,000 rand a year a lion will cost you to have on your ranch.

If you're not generating benefit to photographs and they're not going there because it's remote areas, how you're going to generate it? And if the deal is if no lions on ranches in South Africa other than the canned lion, so you need to change your models.

Kurt Alt:

I need to add a little bit more because I don't think it's a quite equivalent to Africa to Central Asia. Central Asians want remote from access to their wildlife. (Unintelligible) make that disconnect to the ethnic Kazakhstans at least and from what I understand, if not Tajikistans as well.

So citizens still have access, not legal access to all their wildlife, but they do. What I would like to add to Richard statement is, it's not just about (unintelligible) I like (unintelligible), argali and ibex, wherever they have access to those species as well.

And so in a sustainable use legal hunting scenario. That's what where we're trying to go as well, so.

Man: Very good.

(Rowena): I just want to make sure, because we have people who have been on the phone listening. Are there any questions from the folks on the phone or...?

Man: Good point, anybody on the phone have anything they would like to ask at this point?

(Olivia Oprey): This is (Olivia). I'd like to ask Kurt a question about the current situation going on in Kurgas, pending closure of this country.

Man: Did you hear the question Kurt?

Kurt Alt: The last part I didn't hear, could she - in Kurgastan. Yes, we met with one of the ministers and it was shocking after being there in September and to come back and find that they were talking about it, but he thought he actually showed them, have shared with him and visited with him, about our conservation initiative and obviously didn't make any headway.

We're not quite sure where that's going. Whether they're still working behind the scenes - we're hoping that they don't close it. But if they close it and have their lease set, we'll be there, ready just like Kazakhstan. We'll be there with

the Umbrella Program that any central Asian country can work through and work under.

(Olivia Oprey): Is it your understanding that the populations of Marco Polo sheep are of concern and that's why they're wanting to close it or is there another reason?

Kurt Alt: No, my feelings from the under - I'm not sure whether he was with the minister, but he was in the Ministry of Wildlife. My feelings were, we had nothing to do with concern over Marco Polo. It was in country concern that there may be allocations, opportunities, or competing interests, that didn't want hunting in those spaces.
So I don't think it's clear. It's not - my sense is not a concern over - it's not a concern over numbers. It's a concerns or other social issues.

(Olivia Oprey): Thank you.

Man: (Rod) you had a question.

(Rod): Yes, I'd like to ask both of the gentlemen, if you could comment on the impact, for example, you asked the EU import tag. What sort of impact has that had a legal, sustainable use, conservation and legal hunting?

Richard Sowry: I can go first. In one smooth line. It does no good. It only does harm. It's the wildlife suffers totally because you are reducing means to give value to society from the wildlife.

I can't think of as just a conservationist wildlife manager, I cannot - not one point of good that can come out of it. The only good actually, should I say, is that it gets the hunters to look at themselves to clean up their act. So that's the

only good because hunting has got to clean up its act to be acceptable to most of society, rational society. That's the only good it does.

But in terms of the animals, no good at all, nothing.

Kurt Alt: I liken it to my experience. I had to close an unlimited season in the state of Montana that had never been closed to unlimited big horn sheep hunting. If any state, lower 48, has that opportunity - I had to do it at the beginning of the season. When I took the job I thought, I don't want to ever be the person who closes this unlimited season and I ended up closing it and it's amazing because our commission, our sportsmen, our season hunters, and our outfitter interest, absolutely agreed that it needed to be closed.

And I think when it comes to import and export permits, I think I look around - I look around the room and I look at Richard, if there is a serious issue, that a biological issue, that demanded a closure and we said, I don't think anybody in this room would not support it. My concern is we see many (unintelligible) issues, where they are up-listed, down-listed, or de-listed, or driven by - usually not de-listed, are driven by other social issues that really tend to be human being conflicts and values, not in biology.

So for example, Mexico and (unintelligible) here about a year ago, in Mexico, there's a big horn sheep herder and he had as many - almost as many sheep in Mexico, approaching what he had in the US and they're not an appendix two species. Don't those inconsistencies make you wonder?

I think the issue of down-listing in Tajikistan and mark - or the potential issue and the government is at least supportive of it. And in fact (Steve) and I have five times more marker. They don't want to down-list.

And it's all because of economic reasons. They think it would drive the price lower on - and that should not be a reason that takes away from the biological need for societies. And those regulations, might be.

(Bill Brewster): I thank both of you for making great presentations and being generous with your - I'm sorry one more person asks the question.

Man: Thank you very much. For Richard, if you take Kruger as the exemplar, the size of scale and the way you do conservation there, how many other operations in Africa do you think come anywhere close to your approach to the topic?

Richard Sowry: Now, it's got over a hundred years of the history, those three examples of the major wireless zones within Africa, they've all got something special. Serengeti's got that incredible numbers. Botswana is unique that water system and Kruger is because it's iconic.

So the scale of the research, the understanding, the professionalism within the whole product, I don't mean is repeated in any way around on that scale. It's just those - it's about 2 million hectors and it's growing as you can see the map and that's great.

And it will only grow. The communities will give their areas to become part of the greater part if they're going to see benefit from it. So you've got to be tolerant of land uses and if you're not near the airport and you haven't got that, higher density of wildlife that a photographic tourist would we want to go see, you need to tolerate hunting. That you needed to tick the conservation boxes, then it can fit in the conservation area. That's what I would do in the firmity of - I would not ban the import, alright, but I would say it's right.

We want you to tick the conservation boxes and we will continue to support your input. Then it forces them to do all the stuff that they were talking about, which is what they do. Talking the same models, if you look at them, stick the boxes, do the conservation, force the people to do the conservation and let the money get into the chain, instead of going to individuals. It goes to society. Thanks.

Man: Kind of goes back to if an animal has value, he will survive. If it has less value, then some other utilization or land (unintelligible).

(Bill Brewster): I thank all of you for listening...

Man: Hey, (Bill), (Bill) can you hear me? (Bill)?

(Bill Brewster): Yes, we'll let a guy a - from New York make one question.

Man: All right buddy. I just a quick one for the chairman from Africa. Genius stopped their hunting 40 years ago and they only do photographic safaris now. How is the wildlife progressed? How much more wildlife did they have now? How are things, rhino, etc.?

Richard Sowry: I'll give you this simple statistics. There's only two countries in Africa where wildlife numbers have increased in the last 50 years. And that's South Africa and Namibia. And if you look at it and you asked yourself why and looking to get inside into it.

The two things which those countries have in common and the rest of the countries don't share is that you can own wildlife in South Africa and Namibia. The rest of the countries, it's basically royal game, belongs to the state. So if you ask a Maasai herdsman, how many cattle has he got? Not

done this in Tanzania and Kenya, he will tell you exactly. He said to me, 356 and I said this, I said “How many zebra today?” “How many have you got?” “Oh, doesn't matter.”

So there's of little relevance to the thousand's zebra that to them there's more than the cattle, the cattle are irrelevant. And it's because he teased the big benefit out of his cattle. And you want the wildlife to be better? You've got to give them that exact same model.

(Bill Brewster): Answer your question here?

Man: Yes, that was very what I want to know. Thank here.

Man: Okay, without further questions from someone who has yet to ask one. We will move toward having lunch here. We're going to start back promptly at one o'clock with (Anna)'s presentation and (Eric) has something here before we go.

(Eric Alvarez): Just for folks on the phone, we will shut down the conference line until 1 o'clock and then just please call back in. And transcription service will also pick up again at 1 o'clock.

Man: Thanks to all of these who are participating in the conference this morning and look forward to having you back on at 1 o'clock.

Woman: Thank you.

Coordinator: You will now be placed into the conference.

((Crosstalk))

Man: You get people back on the phone or on the phone.

((Crosstalk))

(Bill Brewster): Person can you hear us okay on the phone?

Woman: Yes.

Man: Can the ones on the phone hear the discussion?

((Crosstalk))

Kurt Alt: We can't hear with everybody talking.

Man: Somebody spoke up, Olivia, I believe. Okay. Let's get the afternoon session going. Sorry about the delay. The restaurant here proceeded to lose the orders of people and was not particularly good.

So let's get going. Our first speaker this afternoon is going to be Hannah Downey. Hannah represents the Property and Environment Research Center and she's going to talk about a free market approach to conservation in Africa and Hannah you will come up before will be yours.

Hannah Downey: Thank you guys so much for having me. I'm Hannah Downey. I'm like PERC the Property and Environment Research Center. We're in Bozeman, Montana. And today I'm excited to talk to you guys about some of our research looking at market approaches to wildlife conservation in Africa. So to start off just a little bit of background about PERC. So we're located in Bozeman, Montana. This is what our landscape looks like. We don't have

elephants, but we do have ivory in the form of our elk and other wildlife resources.

So at PERC we work on a wide range of environmental topics, but we definitely have a focus on wildlife, both domestic and international. And at the root of all of that, it's the idea that in order for people to care about wildlife conservation, we need to find ways to make wildlife an asset rather than a liability to the people who are faced by the risks and costs associated with living with wildlife.

And so with all of that, we approach everything through the lens of market approaches, looking at how property rights are able to make environmental resources and asset. And market the way that voluntary exchange can promote conservation and ensure that resources are allocated to their uses.

So with all of that kind of the underlying messages that incentives matter, people need motivation. People aren't always going to be self-motivated to care for things. So if we're able to create structures where people are rewarded for conservation and engage in that conservation, that's when we're able to see environmental quality and improvement.

So my background, I came to PERC in 2015. I graduated with a degree in economics and Montana State. So I approached things from a very economic perspective. I'll be straight up in that I am not a hunter. I went through hunter safety. I've been a part of many elk hunts in Montana. I keep myself fed in the winter thanks to family and friends and a very full freezer of elk and mule deer. So I learned through those experiences, the ethics of hunting and the role of hunters in conservation and the role, that sustainable use can play in all of these things.

So a bit of an overview of what I want to talk with you guys about today. We've learned a lot about poaching and some threats to wildlife. But one I really want to focus on today is habitat loss, specifically on the continent of Africa. And looking at, kind of laying the groundwork and what is the context for this habitat loss.

And that is really that there are changing economic and political environments, which present new challenges to conservation. I'll get a little bit into that. And then looking at international influence, whether on the African continent, through China and Russia, some competing interests. And then also the role of the United States. Some of our new approaches and strategies relating to international diplomacy in Africa and the role that conservation can play in that and the market-based approaches. And in those market-based approaches looking at international hunting markets as well. And I'll try and end with some ideas for improvement where we can go from here.

So to start out one of our major threats is habitat loss. We have a finite number of land and many competing uses for that land without habitat we have no real hope for wildlife, but there is competition for that. We see here there's examples of mining and increased conflict over what land is used for.

And there are ways to find really positive co-uses of land, but we can't always find that. And so we need to find ways to value these competing interests on the landscape. And ultimately the wildlife must be valuable to the local people who are on that landscape. Those local people in those local governments are going to be the one having an influence on whether land is set aside in the conservancies or a hunting reserve or whether, you know, we see alternative development on that landscape.

So as we go through this presentation, I just kind of want to ask you guys the question regarding habitat compared to what? Are we going a step in the right direction? Is that habitat compared to other forms of development? So really weighing some of those tradeoffs as we go through all of this.

Regarding the African continent with 54 countries and about half of them are rated by the world bank or excuse me, about half of them are among some of the poorest countries in this world as rated by the World Bank. So that's important to keep in mind. You know, we have some financial stressors we have - we aren't necessarily always able to consider animals and habitat as sort of this luxury good.

About half of the people are food insecure around 1.2 billion people, which is about four times the US population. So you have - we have a lot of human needs and demands on that landscape. There's food insecurity, as I mentioned, lack of electricity and clean water.

So we have some very real threat to survival and development. Where people aren't always when faced with some of those tradeoffs, do you want electricity through a hydroelectric dam, or do you want this to be a wildlife habitat?

We really need to weigh some of those pressing needs. We'll find ways to engage that. Kind of, in summary, we need to find those ways that make wildlife and asset and part of development rather than just kind of an offset or something to be pushed aside.

So with all of this, I kind of painted a diary- an image, but Africa is it changing continent, we're seeing a lot of growth. The continent is home to six of the 10 fastest growing economies, which is amazing. Under the African

Continental Free Trade Area, we're expecting about 50% boost in Inter-Africa trade.

So here we have economic development and as the picture shows, there's encroachment as growth that's happening, we're seeing cities and development kind of replacing some of these open spaces.

So again, that conflict in uses of a landscape. And with all of this, we really need to think about how does wildlife become that financially sound investment. So again, it's - we're able to preserve those open spaces in light of some of the developments or in hand with a lot of that development.

One of the contributing factors to this changing environment in Africa both politically and economically is the international influence of China.

So China's currently Africa's largest trade partner. And through China's Build and Road Initiative, they're really seeking to invest in Africa in a way that kind of promotes resources extraction and ways to get those resources back to Chinese and Asian markets. So we're seeing a lot of investment in things like pipelines, rail lines, ports, and other infrastructure in ways to transport to and from China.

And these things are being developed in a way that doesn't really exemplify concern for the environment. So a lot of the tradeoff is again, going back to some of those human needs, thinking about if somebody - there are jobs and opportunities with rail lines rather than wildlife. That's where people are going to lean towards. So as we know and see some of these programs are bad for wildlife and bad for long-term growth.

But if this is the only options that's presented to local governments and local people, you can see where the allure lies and how there's opportunities to get people out of poverty and those sorts of things.

ne example with this is the (unintelligible) Town dam and the impact that it's having on the Chinese. So this is a hydroelectric dam being built in Guinea to serve a lot of those electricity needs as I talked about before.

And what's happening with this dam is they'll build the dam and the reservoir is going to flood a lot of the surrounding area to help generate that electricity.

And it's estimated that the impact could be the lives of a thousand plus chimpanzees in the surrounding national parks and protected areas. And so, this should be a note for the United States because this is a species protected under our endangered species act and it's a species that we've invested a lot of money in conserving through the Great Ape Conservation Fund.

And again, it all comes back to how we do development matters for wildlife and thinking about how do we find ways to make development and wildlife go hand in hand?

So we aren't seeing an either/or option. Like only see your option is electricity or a chimpanzee habitat, but that we're able to develop those approaches that linked the two together, that link development and conservation.

Let's think a little bit about what this means for the United States and how the United States can be involved to provide some of those options. Kind of in contrast to what we're seeing with some of the Chinese involvement where we are able to have wildlife and economic development go hand in hand.

So the United States and our African partners do share many common goals and conversation. You know, it's been identified we do want to preserve wildlife habitat. We do want to continue to build these economies, but just how do we do that? And a lot of that is through realizing the value that wildlife has and in that role in development.

So one such approach that the United States has been rolling out, it's a Prosper Africa Strategy and that is really looking at how trade and free market, and engagement by the United States and that way trade rather than aid can really become a part of this development. And these ideas of markets for environmental values, including wildlife markets, wildlife habitat fit very well into that strategy.

And I should know, these are all ideas that have been more thoroughly discussed in the written statements that we shared with you guys ahead of time. So I'd encourage you, if you're interested in more details on some of these things, to look there or asking questions.

But in line with a lot of this is the role of hunting markets and the idea that through some of these international hunting markets and hunting opportunities, we're able to see that value of wildlife realized. People are willing to come in and engage financially in a way that suddenly makes wildlife an asset rather than a liability.

We're able to offset for some of those costs that people bear. When an elephant comes in and tramples your crops or a lion threatens or your livestock, things like that, some of you are able to see that offset, if only it's worth something to you. And you're willing to accept some of that risk to promote habitat in that conservation.

Again, some key aspects that I think other presenters have discussed this morning are the importance of making sure that those benefits are realized on the ground. And that those markets really do impact the local people. So that it's not just a risk.

And in addition to the financial side, we're seeing meat in a continent where they're such great food insecurity. It's important to note the role that - this is food provision can play and ensuring that our market - that our hunting systems are structured in a way that those benefits go back to those local people.

And in addition, some of the funding for community projects. You know, we've seen instances where roads, wells, schools, clinics, all of these different community benefits can come from well-structured hunting markets. So it goes beyond the wildlife.

So we're able to tie wildlife to human development and economic development. And there were able to build economies where wildlife and that development go hand in hand. As I'm sure I've reiterated too many times already today.

So it all boils down to the US is in a unique position to really combine our strategies on the African continent in a way that makes wildlife a local asset.

Along with a lot of that, we do have room for improvement. As some of the other presenters have talked about today, the US import bans on wildlife trophies are changing the value in Africa.

When we allow these markets to be open and to operate in a way where local people are able to decide and those who are closest to the issue are able to

decide what's a sustainable harvest. And I'm not a biologist, so I can't speak to any of that. But what is the sustainable harvest? What are the ways that we're able to make this work on the ground?

When you involve that local knowledge and keep those markets open so that information can be exchanged, and the best decisions can be made on the ground. That's when we're able to see these benefits emerge.

And so banning and placing these trade restriction on the import of hunting trophies really limits those opportunities. And so here's an example that I think really showcases some of those ideas. And it's (unintelligible) game reserve, it really shows the impact of some of the trophy ban.

So this is an area that was once - there was a lot of professional hunting operators, conservative - privately conservative, through private dollars to really conserve some of this habitat. So we saw again, wildlife had value through some of the hunters coming in and be willing to spend money. So people who are willing to invest their private dollars in conservation.

However, with some of the bans on trophy import with specifically some of the lions and elephants, fewer people were able to come and do these hunts. And so the hunting operators weren't able to make money. And so what they've done is they've surrendered their concession. And now an exchange, there's a hydroelectric dam being built in this area with Chinese support. So again, some of those conflicting international influences. And this really showcases an area that was once valued for wildlife and recreation and kind of outdoor experience.

Now those values are shifting again after you compared to what - now that one thing has been devalued, other values are able to come in. So this land

has lost a lot of that value. And we're seeing again this need for power. Suddenly there's that need coming into play and it's conflicting values. Instead, it's really meant a loss of local income for wildlife.

There's instances where some concessionaires have given up to 6.6 million acres, which for a little sense of context, that's three times the size of Yellowstone National Park, which is definitely worth noting. Here we have private dollars that we're going to this scale of conservation and now they're surrendering those concessions and the area is going to be used for a hydroelectric dam instead. Then in addition to that, we see poaching forces being released. They can't afford to pay people anymore.

And so kind of the graphic at the bottom, I think really it boils it down to the basic three points. When you have these import bans, then you call it a loss of wildlife economic value, which then leads to alternative development. Your value structures change.

There's a lot of stories similar to this one elaborated on in some of our written statements looking at the model in other specific areas in Africa. So all this kind of boils down to we can - the United States can improve on both our conservation and international development goals by expanding opportunities for international hunting markets.

And again, there are ways to structure this so that the benefits are actually received by the local people and the wildlife. But the importance is that we don't shut things down on our side, that we're able to allow those local communities to decide what's best on the ground. And we open up our side of that market so that that voluntary exchange can happen.

One idea that we can use to go through a lot of this is to update the US strategy to combat wildlife trafficking. And again, our written statements expand on a lot of the reasoning behind this but I'm happy to answer any questions.

A few key points are to remove language that identifies limiting elephant trophy imports of necessary for combating wildlife trafficking. Here again, a change in messaging. How do we change public perceptions about these things? How do we make it about conservation and showcasing the role that these open market and hunting market can play in that?

Updating the strategy to recognize rural communities as a choke point in wildlife trafficking supply chain. And again, all this stuff, it has to happen on the ground. And the more that we're able to engage these local communities and those local people are able to see wildlife as an asset and not just a risk, then we're able to complete those feedback loops. And ensure that information is happening and ensure that we're able to catch some of that poaching.

Another strategy is to update the strategy to recognize international hunting as a tool for conservation. And I think that one's pretty self-explanatory and also explicitly recognize the value of market-based approaches to wildlife conservation. Right now in this strategy, there's a lot of talk about law enforcement and anti-poaching and things like that.

And in light of some of the US's new strategies to international development, especially with Africa and the ties that this can have with our wildlife efforts as well, I think it's incredibly important to recognize some of those market-based approaches.

A second main point is to lift some of the federal bans on trophy import. As some of these examples I've shown, we've seen that obstacles to trophy importation have had a severe negative impact on the ability of African nations to conserve wildlife habitat and counter illicit wildlife trafficking. And we think this isn't just a role for the US Fish and Wildlife Service.

This is an opportunity for Fish and Wildlife, to work with the state to work with our partners in Africa and kind of around the globe to really come together and remove these obstacles. It clearly - it's an international issue and so we're going to have to work with other people and find ways to work completely within our laws but still work with our partners to find ways that are mutually beneficial to everyone.

The third kind of big category that we see for improvement is to pursue improvement to the Endangered Species Act. As I'm sure all of you are aware, there's multiple steps for international hunting. Right? There's the local country, government-based quotas. There's (unintelligible) steps you have to go through, and Endangered Species Act steps you have to go through.

And I'm sure those of you who are hunters have experienced it more personally than I ever have but there is a lot of - it would help to streamline some of these ideas here.

And so we would suggest improving the Endangered Species Act to streamline the process for trophy important. And one potential option we've been discussing is when a trophy is exported under a range nation trophy quota, the US permit should be given to the importer on a shall-issue basis, unless compelling evidence shows the trophy was acquired illegally.

Again, we aren't calling for, you know, completely revoking everything and we do believe they need to be legal and ethical standards for this hunting. However, there are ways to streamline the process and to understand that we have multiple steps in place to help protect some the integrity of these institutions.

And so the more we can streamline it and help it be a productive conversation and reduce those steps, reduced those -- in economics, we call them a transaction costs of participating in the market -- the more likely they are to have people engaged in a healthy and beneficial way, both for wildlife and human interest.

It all kind of summed up to, in the economic terms, that incentives matter in wildlife conservation. People have conflicting interests, people just care about wildlife. They also have to care about their livelihood. They have to care about feeding their children, going to school, getting medical care. And so the more that we can combine these different, these different initiatives and these different values, that wildlife is able to contribute to some of these human needs or contribute to broader economic development goals. The more we're going to see success in this area. It can't just be one or the other. We need to find ways to involve at all.

So thank you guys so much for inviting us to talk. I should mention my colleague (Kathryn Sensor), she's a research fellow at PERC and this is really her area of expertise. She's an incredible wealth of knowledge and I'm thrilled to be here and be able to share some of her ideas, these are largely her ideas.

And so if you have any additional questions, I'd encourage you to check out our written statement, there's more detailed citations, things like that in there or please feel free to reach out to any of us at PERC. We really strive for the

conservation of wildlife. We think it's an important issue both here and abroad. We think that markets are very, very promising way to do this and we need to tie in the human element as well.

So please feel free to follow up with any questions later and thank you so much for considering some of the market approaches to wildlife conservation in Africa.

Man: Thank you very much. A great personation.

Hannah Downey: Thank you.

Man: We could take a couple of questions now then she'll be on the panel later when we have all of the remaining presenters on the panel. Any questions for her now or should you wait for the panel? Okay, Hannah Thanks very much on the panel later this afternoon.

Hannah Downey: You're welcome.

Man: Very good presentation. Okay. Our next presenter is going to be (Corey Mason), Dallas Safari Club. And (Corey) is going to us a little bit about what all DSC is doing to enhance wildlife and enhance conservation around the world. Corey, the floor is yours. I guess it will take (Eric) just a minute to reboot the computer so if anyone needs to grab a cup of coffee or anything right now is the time.

Man: ... to get from the beginning.

Man: Let me, let me add one more thing. If there's any - we are going to have a public comment time at the end today. So if there's someone here that wants

to sign up for public comment time, you can do so and you've got up to five minutes.

Man: For those who speak up PCK London right there with his hand up he can set you up. So for [unintelligible], the Dallas Safari Club presentation was too big to email to you all, but you can go to our Web site to IWCC Fish and Wildlife Web site and it is available there for anybody who wants to pull it down and look at it.

Man: Very good, (Corey), the floor is yours.

(Corey Mason): Thank you. I appreciate that. Thank you for the opportunity to be with you today. I'm going to just start here and go ahead and continue to move forward. To give you a quick overview, what I'm going to speak to you about today, give just a little introduction about who DSC is.

And a little background about some of the components associated with DSC and then spend most of the time looking outward and to do so. I think it's important to look inward, to look domestically. So I'm going to talk just a little bit about the North American model briefly because the context of that, the funding model is important as we look abroad as well. Talk about some of the greatest challenges as we look, again abroad with the primary focus there.

And then what DSC is doing, looking outward, recognizing that we've heard from other conservation organizations and there are others represented in this room.

But the important part of that is hunters' dollars are funding all of these. So to look at conservation actions that are occurring around the world because of hunters. And we'll speak to that specifically. When we talk about a couple of

current pressing issues, global issues and sort of leave it rhetorically, kind of tee it up about sort of a what would we do, kind of a thing.

So with that, I'm going to start, I know I always find it useful for myself, to understand who's speaking to me. And so to do that I want to provide a little context of myself.

I've spent my wild - my career in wildlife management, a bachelor's and master's degree in wildlife management. I am a certified wildlife biologist. So I will be speaking today with a couple of hats on. Speaking specifically some biological components and then I'm going to talk big picture as well associated with a number of things. Published fairly extensively peer-reviewed articles as well, a number of topics associated with that and scientific literature, so.

And currently my capacity as executive director and CEO of Dallas Safari Club prior to my time at Dallas Safari Club, I worked for Texas Parks and Wildlife is a wildlife biologist for 16 years. In that capacity, I worked as a management area biologist, managing habitats on the ground for public use to research prescribed fire, timber practices, wetland management, all sorts of things.

Following that, I worked with private land owners writing management plans associated with all kinds of species, worked in the migratory bird program, specifically within the state. And then finished my career with a state agency as a regional director.

So I have worked with domestic as well as foreign partners my entire career working in wildlife management. Now to speak to Dallas Safari Club. Now the mission is here, I will read it to you because it is important to ensure the

conservation of wildlife through public engagement, education and advocacy for well-regulated hunting and sustainable use.

Within that mission, you'll pull out three specific words and that's conservation, education, and advocacy. And I'll speak to those in a little bit greater detail as we move forward. Most of my focus today, nearly exclusively, will be abroad, most specifically Africa. Recognizing the context of this particular council. I could speak equally to things that are going on in the United States associated with Dallas Safari Club actions. But within that, again, context wise, I'm going to speak really looking out.

Dallas Safari Club is comprised roughly of 6,500 members and is well internationally represented. Now to speak to the foundation, the sole mission of the foundation is to serve the mission and vision of DSC. Looks like we've got a few PC to Mac errors here, but that's all right. We'll move through that. Most specifically and most importantly, in the context of this conversation and presentation today is the fact that the foundation serves as a charitable arm for DSC that provides the majority of our conservation grants worldwide.

I'll speak very specifically to this in a little bit. Just want to paint kind of the larger context right now, who DSC is and what we do. And it is a 501c3.

And a third tenet to DSC and which many of you may not be aware of is the Frontline Foundation. The foundation was created to provide financial assistance to eligible guides, professional hunters, anti-poaching staff and game rangers, who in the course of their action or work are seriously injured or worse, dead.

Now, some of you in this room may not care at all about eligible guides and outfitters, but everybody in this room should care about those associated with

anti-poaching and game rangers, these are government employees many times, that are truly on the front lines, doing conservation work and which we should all be able to agree to. Lastly, they are a 501c3 as well.

One important note associated with DSC, obviously we have a board that represents us and helps point the direction forward, but a recent formation -- and one that I'm quite proud of -- is a conservation advisory board. That I think everybody - to keep in context as well as we use to determine our priorities, priorities as far as resources in the sense of time as well as fiscal resources.

The purpose of our conservation advisory board just to really provide a subject matter expertise regionally and globally. Again, that helps us really determined where we spend our time and resources.

Really briefly, I'll address through these are (Jeff Rein) is President of the Congressional Sportsman's Foundation. (Kahleel Karmal) is a research scientist, vet and biologist, in Tajikistan, spent a significant amount of time associated with snow leopard research and associated systems. (Rob Keck) is the conservation director of Bass Pro Shops and Cabela's. (Shane Mahoney), most in the room probably know, Director of Conservation Visions, sort of global expert on many things, extremely active in the IUCN.

Again in a global scale. (Thomas) is the Director General of CIC, International Council for Game and Fish Conservation. (Ron Reagan) is the executive director of the Association of Fish and Wildlife Agencies representing all 50-state game and fish agencies as well as the providential Canadian provinces. And (unintelligible) serves on the Median Wildlife Conservation Board and a landowner and a PH in Africa.

You'll see the IUCN sprinkled through our presentation. You saw it on the lead slide and that's something that we are very proud of. Those that are not familiar with the IUC and should be.

IUCN is a global authority on the status of the natural world and all the means and practices if you will, and ways to safeguard it. DSC is a member and member since 2015. With that, I'm going to start with an introductory video here. Sort of an overview of who DSC is.

((RECORDING))

Man: Over the years, Dallas Safari Club has been (unintelligible) international hunting, as well as a recognized member in the World Wildlife and Wilderness Conservation.

DSC's mission is to ensure the conservation of wildlife through public engagement, education and advocacy, well-regulated hunting, and sustainable use. Dallas Safari Club's vision is that of a society that values wildlife, engages in conservation, and understands and supports the role of well-regulated hunting and sustainable use of wild resources.

This vision is supported by an international membership of passionate and committed individuals who are dedicated to protecting the (unintelligible) of conservation through hunting.

To expand, Dallas Safari Club leadership role in the industry, the DSC Foundation was created in June 2015. The DSC Foundations sole mission is to support the vision of Dallas Safari Club through the distribution of financial grants, made available through fund raising.

Our world is changing. Our proud hunting heritage and even our outdoor way of life are under increased threat. The proven model of conservation through hunting is under attack. Politics and political correctness have taken the place of science-based wildlife policies. Government restrictions on the importation of both elephant and lion are just two glaring examples of politics over stepping sound wildlife management.

The recent shut-down of grizzly bear hunting in British Columbia is another. The ongoing war to combat poaching and illegal trafficking wildlife continues to rage, primarily on the continent Africa.

Well-funded and well-armed poaching syndicates continue to plunder wildlife on a scale that, unless stopped, maybe (unintelligible). The hunting community and wildlife populations around the world are at a crossroad. Dallas Safari Club will do whatever is necessary to promote and protect the system that has proven itself over and over again. We will work to eliminate the scourge of poaching and we will continue to use our voice on the international stage. Dallas Safari Club and the DSC Foundation will never forget why we are here. We are here to conserve, to educate, and protect the rights of hunters and animals.

((END RECORDING))

So that's a quick overview of DSC. Now I'm not going to miss an opportunity like this to speak and not put the biologist hat on for just a couple of minutes and I think it's unbelievably important as we look in the context of wildlife management. So we're going to go back to the kind of biology 101 and talk about what we see here.

So we're going to define carrying capacity. Carrying capacity is the number of animals or individuals in which a habitat can healthily sustain, the key being the word there that's underlined, healthfully. Got a picture here of some cattle, maybe if you're a livestock manager, you're familiar with the concept of stocking rate. If it's livestock of any kind, cattle, sheep goat, it doesn't matter what it is. That concept is the same no matter what we're talking about.

If we're talking about elephant management, if we're talking about whitetail deer, if we're talking about cattle. The land can only healthily sustain a certain number of individuals. I'm going to talk specifically about the importance of that in just a little bit.

There are things that influenced this as well. Then recognition that carrying capacity is not something that is established at one point in time and from that point forward it is a set number. Rather it is something that varies tremendously.

If we look here in North America, maybe it's winter range, maybe it's summer range, maybe were in the middle of a drought. Maybe we have to destock cattle. Maybe we have to think about the same concept associated whitetail deer or elk management in the winter range. Maybe we have to think about the same thing about species that live 50 to 75 years, how they can permanently destroy their habitat if they exceed carrying capacity.

This is a concept that is unbelievably fundamentally important for everybody in the room to understand as we talk about management of our wildlife resources. This isn't something that's debatable. This is a fundamental land management concept.

Let's look domestically before we jump out here. I want to talk specifically about the North American model of wildlife conservation. In the North American wildlife conservation model. We can look back to, we'll say the 1930s to start with if it's sort of a point in time, we look at in 1937, essentially, it's a passage of the Wildlife Restoration Act Tax. It was essentially self-imposed those who are closest to the resource.

Hunters and shooters. Self-imposed the tax to make sure that there was a consistent revenue stream associated with the management of these species. This user-based cared so deeply and passionately about - this model has been used to successfully recover some of the most numerous species in North America. South American pronghorn, elk, whitetail deer, wild Turkey, all that numbered in the millions at this point, many of them are on the verge of extinction at the point in time.

They have been successfully recovered because of this particular model. A model referred to as user pay, public benefit. So what does that mean specifically? That means the user that sits closest to these natural resources, the hunter pays, for the conservation of these wildlife resources. That means the public at large, those that are part of this and those that aren't, that pay into this, had the opportunity to benefit from hunter's dollars funding the wildlife conservation.

Some specific examples, if we look at the Pitman Robertson allocation to the states, this last year was \$797 million. Those in the room recognize that most state game and fish agencies, 80 plus percent of their operating budgets come directly from hunter dollars. If it's PR reimbursement or if it's the direct sell of hunting and fishing licenses and stamps specifically.

We're here in Texas, so I chose to use that as example. If we look at Texas Parks and Wildlife and the Wildlife Division budget. We see that \$37 million came from PR. \$57 million came from the direct sale of hunting license and associated stamps. For the Wildlife Division budget here is just showing \$100 million, \$94 million specifically that came directly on the backs of hunters.

Now worked for the agency for a number of years and I can tell you that a land owner called - associated with helped me write a management plan for whitetail deer, or eastern wild Turkey restoration, or waterfowl, that gets a wildlife biologist in the gate.

The time that you're there, we're talking about prescribed fire, native grass restoration, pollinator management, sedimentation control, erosion control stream beds that are sloughing. They will ultimately lead - and sedimentation of bays and estuaries downstream. So it gets biologist boots on the ground to do conservation work at the state level, regardless of where you are. This model works and it has worked successfully in North America without question.

Another important tenet of the North American model of wildlife conservation and incredibly important tenant is that wildlife should be managed using sound science. You'll see a couple of quotes my presentation again from the IUCN and I'll use these kinds of throughout the service, some kind of stop gaps here as their important points of emphasis.

I'm going to read this one to you. It says in many parts of the world; indigenous and local communities have chosen to use trophy hunting as a strategy for conservation of their wildlife and to improve sustainable livelihood.

There're some really important words in there that I'm going to spend just a second on. And the fact that it says indigenous and local communities have chosen. This doesn't mean that the world, particularly the Western world, have told them how to manage the wildlife species. These are local people that have chosen this strategy to manage not only their wildlife resources but if you look at the last part of this statement, it says to also improve sustainable livelihoods where they are in the world.

From the IUCN - and like I mentioned at the beginning most of my presentation from this point forward will be focused on Africa with Africa in mind. Again, recognizing the constitution of the council here. So I wanted to start with a sort of identification of some of the greatest challenges associated with the African continent.

And many of these have been pointed out by my predecessors today and they're great presentations. I'm going to follow that up and hopefully drive a few more points a little bit further home by doing so.

Habitat loss, we talk about this, we've heard it in every presentation so far today. I would give the same presentation if we were talking about North America, or Europe, or Tajikistan, or Africa, but it is particularly a pressing issue on the African continent. If we look at habitat loss, it's attributed to many things, particularly it's attributed to the (unintelligible) half year.

The human population growth. I'll speak to this and a little bit greater detail here shortly. Bushmeat, what is that? I'm going to speak to that as well.

For the local pot, literally to put food in my belly, or for commercial sell around the world. Poaching, that's fairly self-explanatory and politics and the western influence. And as I will boldly say, many times as I referred to

Western influence as Western arrogance. People in North America that are willing and feel they have the right, if you will, to tell people around the world how they should manage their wildlife resources and they've never had African dust on their boots.

They'd never been on the continent. And they don't even know what the people are like. They've never been there, but yet they have the arrogance to tell these people how they should manage their community and the wildlife resources. I will speak to that and more detailed as well.

And lastly, in most of those cases, those that are willing supersede science and use emotion to make these decisions.

When we talk about habitat loss specifically, wilderness areas worldwide are under increasing pressure and again to focus back what we have here. When looking at Africa, there are many things here that can attribute to habitat loss.

Specifically, we talk about commercial and subsistence farming. It may literally be the one acre of land or half acre of land that is behind a plow and an ox that is broken new this year to be able to provide food for my family directly. It may be those that are growing larger crops to be able to have revenue to have something to use to feed their family.

Commercial mining. Unprecedented rates, as we've seen the Chinese influence on the particular continent there in Africa, it's essentially in an unregulated capacity as well. And unregulated logging, logging itself. Forest management is a great thing but not when it's not followed, a certain set of standards if you will followed by replanting reforestation as well.

Many of these things, nearly all of them can be attributed to the second point there. A population explosion. This again has been pointed out by my predecessors here on the stage.

Points of time here. If we look at 1950 really not that long ago, we saw a population on the African continent of 228 million. Today we look at a population of 1.3 billion.

We jump forward again, a relatively short period of time. We will essentially see a doubling of the African wildlife- of people in Africa to 2.5 billion. Now, this takes a strain on resources in many ways.

Number one is that a direct place in which people have to have a residence, right? And it's also the associated with substance. It's food. It's all of the things associated with the requisites of lives. So there's the indirect and the direct consequences of a doubling of population on the African continent. Now we're going to move to video that talks specifically about this.

((VIDEO))

Man: There was an overwhelming public perception that the greatest threat facing Africa's wildlife is increasing presence of poaching syndicates targeting wildlife purely for financial gain.

Certainly, the international media continues to highlight the fears of organized poaching, which in some villages have indeed decimated certain species of game. But the (unintelligible) and underreporting the idea that the greatest single threat to Africa's wildlife was loss of habitat due to the continents exploding human population.

In 1950 Africa's population 228 million fast forward today and the number is an astonishing 1.3 billion people that must compete for survival on the continent. That crush of humanity is projected to double to 2.5 billion by the year 2050 hasn't.

Without question, the evil of organized poaching has a negative effect on wildlife populations in Africa. But (unintelligible) corruption in certain countries is also an issue. These countries who value wildlife not as a national treasure, but as a resource to be pillaged for political favor and financial gain. Yet both poaching and corruption pale in comparison to the uncontrolled human population on a continent already at a breaking point.

To feed this swelling part of humanity, wilderness areas will (unintelligible) domestic herd and the new pasture of the (untellable) for sanctuary of game.

As commercial and persistence follow, this same county under the plow, cut and burn acreage to clear lands for crops, cattle, and homesteads. Add the blight of commercial mining and of deeper association by other business and foreign companies, mining at an unsustainable rate, and the game will be squeezed into shrinking and unsuitable habitats. And finally, tragically, into oblivion.

Historically, Africa's wildlife has one great champion that has held the poacher, the plow, and political plunder in check. That has been value placed on game animals and the revenue (unintelligible) by the hunter-conservationists.

It is the hunter who protects and invests in sustainable resources. It is a fact that conservatism and any financial benefit it may bring (unintelligible) by wildlife and national parks, and private game preserves.

It is the wild undeveloped spaces where games has disappeared. Legal, well-regulated (unintelligible) has always been the financial fuel that runs the engine of sustainable use conservation.

The fact that you are capable of financial benefit that legal (unintelligible) hunting brings to the rural people who live among the wildlife, (Unintelligible) as they disappear. As sure as the human population swells.

Without the hunter-conservation, the game has no value other than meat for the pot or the illegal wildlife trade. The revenue that was left is vanishing. And mankind's future will forever be a grim reminder of the fallacy that the game could care for itself. It's only man that leaves nature to its own devices.

We must make a stand for the wildlife and the wilderness they call home. And fight for science in place of politics as we take the matter before us. Africa's wildlife has no (unintelligible) so it's our duty to raise our voice in these challenging times and to make sound wildlife policies. As this fight enters the critical stage.

Without us, and the gifts we provide, wildlife could not survive in our lifetime.

((END VIDEO))

As we all know, if it's here or anywhere in the world, something will occupy any given space. And that is most often times that is the greatest economic return. Here's a quote from the IUCN and as well, money can be a positive driver for conservation because it increases the value of wildlife and the habitat it depends on. You heard the same thing for Richard this morning.

As the greatest economic value people have a place. If it does not, it will be replaced period. As we further look at habitat loss kind of parse that apart a little bit. There's a couple of different types of habitat loss we can particularly look at.

One from an ecological standpoint, maybe they're indifferent, but when we look at this biological habitat degradation. We look on the left, we see elephants in a pool watering themselves and what appears to be a healthy system. You look on the right with the biological lens on what you see as a system that will never be the same again.

Thus introduced the concept again of carrying capacity what we see as a habitat which has been affected by elephants and then every other species that lives in that habitat now is permanently influenced in a negative capacity.

Beyond those terrestrial animals in which we see. If we look even further, what we see is an absolute floor of a forest that is devoid of vegetation. So what does that mean now? That means everything from invertebrates to bird life is gone. Further, it means that sedimentation erosion from that system, now that soil will be lost.

So what does that mean? Further erosion and sedimentation of local streams, bays, and estuaries ultimately. That system is permanently altered and will take, you know, half a century to recover if ever, without changing many other influences into that system.

I know the type of habitat loss comes more indirectly if you will. You look on the left, you see a system that maintains wildlife and wildlife species, a healthy habitat if you will. You look on the right. What happens in the

absence of those wildlife species having a value? They are replaced. They are replaced again by cattle. It could be replaced again by the oxen and plow. Nonetheless, the value of that particular habitat, the wildlife species is gone. Potentially permanently depending on how long it's overgrazed in that capacity.

It's habitat loss. You can determine right there which of those two scenarios has the most economic return and value for the locals right there. In this case, it's livestock.

Let's look at a specific example from an aerial view. This is an example in Tanzania you see (unintelligible) safari area on the right and you see communal land on the left. You see vegetation and the absence of it on the left, nothing more, nothing less. Pretty straightforward.

You see where wildlife species have value, there's a force - a system there that is intact. You look on the left it is absent of that. Wildlife have value the habitats associated with them will remain.

IUSN well-managed trophy hunting which takes place in many parts of the world can and does generate critically needed incentive and revenue for government, private and community land owners to maintain and restore wildlife as land use and to carry out conservation actions. To put an exclamation point on it if you will.

Now we continue to look at the challenges. We talked about bushmeat and poaching. Now, these vary in scope and size tremendously. Look at bushmeat for a second. Again, this varies from the individual that is literally trying to feed his or her family to commercial bushmeat crisis, if you will, that are selling black market around the world and everywhere in between.

But nonetheless, it is something that unbelievably and without merit, if you will, or bias takes whatever walks into the trap or snare.

Organized poaching syndicates. Everybody in the room is likely aware as well. Many people are aware of such as penguins and elephants and Rhino horns. There are many others as well that are included in this.

Some of this as a result of human-wildlife conflict is sort of a third point on that and ever-increasing population, less wildlife habitat. There will be more conflict with human and wildlife on the same continent, essentially occupying the same space. The end result - resulting many times and retaliatory or sometimes preemptive killing.

What does that mean? That means a leopard comes in and eats my last goat. What am I doing next? I'm poisoning that goat and everything that he that is going to die. If it was the culprit that it consumed that goat or not, everything that touched it is going to die. That's a result of human-wildlife conflict.

Now to speak specifically to basically the implication of regulated hunting on these particular parts of iconic animals, if you will. Concern is frequently expressed that trophy hunting is driving decline of iconic African large mammals such as elephants, rhinos, and lions.

For all of these species, well-managed trophy hunting can indeed promote population recovery, protection and maintenance of habitat. This is from IUCN, this isn't from Dallas Safari Club. This is from IUCN.

So now we look at sort of another influence of this and politics, social media continuously driving uninformed messages. Again, many of this is purposeful

and some of it is ill intent. Some people simply don't know. They have a hard time understanding how hunting can be conservation.

Many of these, these iconic African species are the targets and results of those. Media do not objectively report these issues. I'll give an example of most recently of the hunter that went to Pakistan and hunted the (unintelligible). Headline that reads something like to hunt down to kill an animal. That paints the intent of the article before you even get into the article, they're telling you their viewpoint before the article even begin. It is not objectively reported. The other side of the story is very rarely told. That's our fault. Many times.

While policies are increasingly driven by politics. Again, emotion over science. We see it day in and day out. We see policies right now - we look in California, Iconic African Species Protection, made it all the way to the governor's desk.

There are many others that we'll talk about shortly. We see importation bans on elephant and lion, been mentioned many times as well today. And the impact that it has directly on the management of those species and their habitat, unintended consequences of these policies and sometimes pieces of legislation. They work in the direct opposition of these animal's favor.

And lastly, I sort of asked this rhetorically because I know the answer. Did any of these people that are working from North America or Europe that are putting these policies and basically trying to speak for Africa, did any of them pick up the phone or take the time to call say, for example, ministership in Namibia and ask him what he needed to manage his wildlife resources or his local wildlife resources and for his people. The answer to that question is unfortunately no.

People that are moving those types of legislation forward, not thinking about the people that it most directly impacts on the ground and for decades and, decades and decades of wildlife habitat is the indirect result of these types of pieces of legislation.

I'll walk into a real-life scenario here. Follow me. There's a lot on this slide. I apologize for that but walk the walk through this with me. We start here specifically looking at Zimbabwe elephants again that's been mentioned already this morning by Richard I believe.

Carrying capacity and again, Zimbabwe, elephant herd estimated at 83,000 with a carrying capacity of less than half of that, so what does that tell us right there. We already have permanent habitat destruction that is occurring in the absence of management of these people.

Further, when we saw an actuality, many of these elephant populations, quotas are managed on a 3 to 5% basis, in which permits are issued. By quota of 500 that quota had not been reached most years offtake was 250 to 400.

In 2014 the US stops elephant import from Zimbabwe. Not even talking about what direct implications are having on the ground here. A loss of key revenue to both safari operators as well as national parks that rely heavily on the funds from the sale of these hunts used for anti-poaching. As was mentioned this morning by Richard.

One of the very first things that happens when revenue is lost is that anti-poaching is the first thing that's cut. 2014 to '17 positive enhancement study, if you will undertaken the 2017 US Fish and Wildlife Service determined that hunting enhances elephant population.

We fast forward, here we are, elephant importation, practically speaking, the ban still continues.

Meanwhile, safari operators and Zimbabwe National parks continue to face the financial crisis. We look at people walking away from managing pieces of property, wilderness lands because we can essentially no longer afford to do so. And lastly, an unintended consequence, elephant poaching, and habitat loss continues. Nothing's changed. Nothing happened for the better, unfortunately.

((VIDEO))

Man:

In the form of politically-driven regulation, from here to the United States. The importation extension of legally-taken sport hunted trophies, such as lion and elephant, into the US, signals the beginning of the war about to rage across the continent, and the economic blood has already begun to spill.

You may have heard that (Eric Pasanisi), owner of Tanganyika Wildlife Safari, the largest and longest operating safari company in Tanzania, has made the grim decision to surrender all of his company's massive hunting blocks back to the government.

This news will be cheered by low-informed anti-hunting communities, but tears are being shed by those who actually understand the realities of Africa and her wildlife. They have seen firsthand the fighting and catastrophic results when African wildlife policies are dictated by politics and public opinion in place of science-based wildlife management.

This is the closing of a single safari company. The following conservation makers have become a thing of the past, and that (unintelligible). In the past three years, Tanganyika Wildlife Safari and partnerships with their safari clientele have raised \$2.4 million solely dedicated to anti-poaching efforts in their safari areas.

This critical funding has now vanished overnight, and with it, the safety of game that forced, due to that ongoing protection. The company's private donations of vehicles and airplanes to Tanzania Parks Department also used in the war to combat poaching will now dry up, and they will not be replaced.

The loss of company funding that kept 100 Selous game scouts across anti-poaching (unintelligible) in the field will now leave vast areas open to commercial poaching, areas that were once avoided by even the most hardy and dedicated wildlife criminals.

(Unintelligible) donated countless big game safaris to (unintelligible) for auction. These donated safaris raised \$500,000 for lion research in (unintelligible). The loss of a single safari company and its decades of dedication to wildlife conservation could have an irreversible effect on the future of all wildlife in Tanzania.

The grim reality is that more dedicated African operators across the continent are on the brink of the same heart wrenching decisions faced by (Eric Pasanisi). They are being forced by onerous permitting requirements to abandon the wilderness they have fought to preserve, and the wildlife they have dedicated their lives to protect will face financial ruin.

Who will fill the conservation boards when the hunter leaves? Who will fund the anti-poaching efforts in these remote wilderness lands? Who will ensure

that these wilderness areas do not disappear under the plow, or see the wildlife replaced by (unintelligible)?

The end of the game is in sight. (Unintelligible) sport hunting operators like (Eric Pasanisi) that have made profound contributions to conservation are the wildlife's only hope. Dallas Safari Club and the DSC Foundation implore the president and the leadership and the leadership at the US Fish and Wildlife Service to utilize science as the sole basis to make decisions as it relates to the wildlife. The politics supersede science-based wildlife management will place a death sentence on Africa's game.

((END VIDEO))

(Corey Mason): So that is one example of an operator that walked away from a large amount of acreage. As Hannah pointed out earlier, we look at the Selous game reserve in Tanzania, approximately half of the blocks are unoccupied at this point in time, which means anti-poaching efforts, et cetera, et cetera, are not occurring, which means others are in those blocks, exploiting wildlife resources.

So now you see blanket bans or restrictions affect both good and bad hunting practices. They are a blunt instrument that risk undermining important benefits for both conservation and local livelihoods. So if we now look towards the local livelihoods, I just picked a few points of fact here to illustrate the point that hunting provides to local communities.

Hunting in Africa directly generates over \$300 million at the very conservative number. It could be many, many times that. Hunting in South Africa alone generates \$130 million. Average in-country spending is \$26,000 per hunter, in-country in Africa. Not in the United States, Africa.

Safari operators in Tanzania supported anti-poaching and local projects, \$9.8 million. Again, these are just points of fact. There's many, many others we could fill the slide with and give a presentation on that alone. Over 280,000 pounds of game meat distributed last year in Zambia alone. Again, that's just one country. Fill in the blank with all the others that have legal, well-regulated sport hunting.

Look at some of the benefits to rural communities. Many in the room know this. Many have been there, some haven't. Employment in rural areas, camp staff, trackers, skimmers, game scouts, et cetera - this is not in addition to plentiful employment opportunities that are there. These are in very rural areas. These are very precious resources and jobs.

Infrastructure development, in the sense of schools, medical clinics, water, (unintelligible) holes, water resources that are the source of life, and really importantly, there at the very end, you see the results of a local meat drop there, protein in the stomach, which will then result in a lack of bushmeat trade, as well as poaching.

Legal well-regulated trophy hunting programs can and do play an important role in delivering benefits from both wildlife conservation and for the livelihoods and wellbeing of indigenous and local communities living with wildlife.

One question that we're asked a lot -- and Richard hit this one really well this morning, but it's a question that I'm asked a lot -- is the sustainability of photo tourism versus hunting. There are others that will tell you it has to be one or the other. Well, I will reiterate a point that Richard made.

Obviously the two complement each other. They both have roles and places, and the reason I say that, because very rarely does one take place in the same place that the others do. Sometimes they complement each other. Both of them can provide economic benefits with conservation to wildlife species. That's very important.

Like I mentioned, they typically take place in different areas, though. Photo tourism and photo safaris typically take place in national parks or land associated with that. Private game reserves are near or adjacent to national parks, places that have a high density and reliable game populations where you can put people and wildlife together so they can photograph and see them and sort of interact, if you will.

Well-developed road systems, infrastructure, water resources - again, to put wildlife in front of people in a really short period of time, and that all the infrastructure associated with that as well, typically a more luxury environment. Whereas hunting safaris take place in more remote areas, typically. They take place in areas where there's lower density of game population, over vast, vast areas.

Very little infrastructure associated with that. And lastly, the economic incentive is to rural Africans versus those most typically associated with photo safaris. They're associated with the national parks or those close lands associated with it, and the economic return associated from typically in more rural areas from hunting safaris to photo safaris is often times a multiplier of 15 to 20 times.

So what is DSC doing to interact and hopefully confront some of these challenges? We look specifically at rhinos, and that's one in which DSC has

been branded in a very positive way, in which we relate and specifically work with the country of Namibia on a very close basis.

The DSC foundation, as I mentioned earlier, is really the interface in that, that provides the conservation grants around the world to fulfill and achieve and challenge some of these issues and threats as well as hopefully resolve some of these things. Just last year, 22 grants funded in 2018.

DSC Foundation provides grants critical - to fund critical wildlife research, needs, and conservation initiatives. This can vary from needed lion research, recently funded from DSCF. It can relate to ongoing leopard census projects that is being used to inform (unintelligible). Again, hunter-funded projects.

Obviously you see Selous game scouts there. You may have seen the DSC helicopter in the air. That's one of which we're very proud of. DSCF continues to support Zambezi Delta safaris to fund anti-poaching patrols over the unprecedented essentially reclamation of wildlife populations in Coutada there, in Mozambique. Here's a short video following.

((VIDEO))

Man: The (unintelligible) of wildlife in the Zambezi Delta and Coutada (unintelligible) is one of the best conservations in Africa today. One of the main contributing factors is the anti-poaching efforts that we run here. The (unintelligible) safari helicopter is without doubt our most important tool, which becomes our eye in the sky (unintelligible) and backup for the ground units.

((END VIDEO))

(Corey Mason): Again, I sort of rhetorically ask the question, but who is funding anti-poaching on the ground wildlife conservation efforts in the absence of hunters? And the answer is no one, at any seemingly significant level. This is another result of that. I'll give one more example.

DSCF continues to support the Dande Anti-Poaching Unit, DAPU, as you may have heard it referred to, to equip scouts with equipment and to be in the field with quick response control. Here's a quick video associated with that.

((VIDEO))

Man: DAPU (unintelligible) have largely been thanks to the Dallas Safari Club and the Dallas Safari Club Foundation. We have financially supported DAPU over 80 years, and as a result, we've seen the successes that we have today. Dallas Safari Club and the Dallas Safari Club Foundation are true leaders in the world fight for conservation. We're incredibly grateful for their support.

((END VIDEO))

(Corey Mason): We've seen examples from a couple countries. I'll give you one more, associated with Tanzania, (unintelligible) in support of anti-poaching patrols and conservation efforts associated with blocks in Tanzania.

Now, if we move specifically to conservation projects here, to maybe species not typically thought of, of a conservation funded by hunters, the projects specifically, Ivan Carter Wildlife Conservation Alliance, and associating with the Giraffe Conservation Foundation expanding African giraffe populations, here's a video that explains on that just a little bit further.

((VIDEO))

Man: Dallas Safari Club Foundation thanks you for your support. (Unintelligible) A huge thank you to DSC Foundation (unintelligible). Thanks, guys.

((END VIDEO))

(Corey Mason): I ask again, who would fund that in the absence of hunters? These species will not be hunted, that's not the purpose of them being moved. They're being moved to reestablish a population where it's absent. Who will fund that, in the absence of hunters? Now to look at human wildlife conflict, again, this is just a really cross - a smattering, if you will, of projects.

But they show a scope, if you will, and breadth of work being done using Hunter's Daughters, (unintelligible), looking at reducing human wildlife conflict. If this is where you live, and under that tarp is where you have someone spend the night because your entire existence stays in that boma at night in the sense of goats or sheep, what do you do?

Do you poison preemptively, to keep a predator from killing your livestock? Or do you try to come up with a solution to reduce and eliminate that threat from occurring? Well, if you look in those little yellow circles there, you'll see a solar powered light which DSCF is funding to reduce that.

Again, if you look in that boma, and this is your existence right here, those lights right there, funded by DSCF, help reduce human wildlife conflict. And let me tell you just a little bit of a diverse story, if you will.

That project was funded by a number of partners in the past. When DSCF funds were used to that, some non-hunting, anti-hunting organizations redacted their funding associated with that project because they didn't want it

to be in conjunction with DSCF. So, DSCF now funds the project, to reduce human wildlife conflict. Who's funding wildlife conservation, reducing issues associated with human wildlife conflict?

Educational component associated with a third tenet of the mission there, DSC Foundation grants specifically associated with educating people to conserve the world's wildlife resources, and one of those sources on the African continent was mentioned this morning as a Southern African wildlife college. This represents many things.

It's the training to equip rangers. It's for aerial surveillance. It's to build a canine response team associated with anti-poaching. Local community benefits from this, because the people that go through the college are typically rural Africans with the opportunity to have a sound career in wildlife conservation here.

So, as I start to wrap up here, I sort of ask what influence will the Western world have on wildlife conservation in Africa? Right now, we have a number of people that have their fingerprints and handprints on things, and many at the detriment of wildlife resources in Africa. When you look at this young man that's sitting there on an elevated platform to protect his crop from raiding elephants, how do you tell this young man how to manage his wildlife resources and his livelihood?

You're telling him to look the other way when his crop is gone in 30 minutes and everything that he has? Or do you invest in him, and hear what he has to say and how those local wildlife species need to be managed in concert with him trying to make a living? This is a local issue. I have one more video, and then I'll wrap up, associated with a pressing point that just occurred.

((VIDEO))

Man: (Unintelligible) in Pakistan caused well-chronicled outrage from the usual anti-hunting groups. An American sportsman paid \$110,000 to legally hunt one of four more (unintelligible) to be harvested out of a local and growing population of 1200 in the area where the hunt occurred.

In several articles about the hunt, it went unreported that 20% of the (unintelligible) revenue generated went directly to the Pakistan Wildlife Department, or that the local community in the Gilgit region where the hunt was conducted received the other 80%.

These few illegal and tightly regulated hunts financially incentivize an entire region to end all meat hunting and poaching, and provide year-round protection for this precious and renewable wildlife resource, as well as all other wildlife in the region. We approve that this conservation model is working.

The (unintelligible) of the markhor from threatened to near-threatened on their (unintelligible) of threatened species. The reason? Because markhor populations in their native (unintelligible) have rebounded from an all-time low of 2500 animals in 2010 to more than 5700 animals today, and as poaching and meat hunting all but eliminated by local private authorities, both populations will continue to increase dramatically.

This population growth was a deciding factor in the US Fish and Wildlife Service's decision to downgrade the markhor from endangered to threatened, thereby allowing American hunters to import legally hunted markhor.

(Unintelligible) that two media outlets, The Washington Post and the National

Public Radio, both printed scientifically and factual (unintelligible) on this particular hunt.

Both (unintelligible) the proven fact that this markhor hunt and the revenue it's generated placed a financial value on not only this particular animal, but an entire regional species (unintelligible) stopped illegal poaching and meat hunting in its tracks. The DSC Foundation recognizes and salutes this as another successful example of the proven model of conservation through hunting.

((END VIDEO))

(Corey Mason): So it makes me wonder why this conservation success is not celebrated by those that seem to have a care and concern for wildlife resources, but yet they're the first to throw a spear, if you will, at this individual, returns back with public criticism for what he did, failing to report the 20% went to local communities. 100% of it all went back to local, divided up.

But nonetheless, those local dollars were kept locally for the management of this particular species. As we move to one that's right now - that really got formatted differently.

But nonetheless, as we look at the challenge that faces us right now in Botswana, with many willing to take to social media and criticize the president of an African country from the comfort of their house in North America or Europe, again, with an elephant population estimated at 133,000 and a carrying capacity of 54,000, with a president that's looking to establish an opportunity to return hunting there.

And I'll leave you with this quote, where the president says, "It bamboozles me when people sit in the comfort of where they come from and lecture us about the management of species in which they don't have." Well said, right? Thanks for the time. I appreciate it. Thanks for this opportunity.

(Bill Jarrod): (Corey), thank you for a very good presentation. We'll get you in questions for the panel, but I'd like to make one comment. You mentioned Zambezi Delta safaris. (Unintelligible) a couple times, some of the best habitat I've seen in the world. There were no lions. Now, there's hunting dollars that Cabela's Family Foundation and DSC and others, they've captured and moved 24 wild lions in, about October, November, six males, 18 females.

Four of those females now have had cubs, and there's a lion population there for the first time in years. Now, they did a lot of work for a couple years with the local community, got them tractors and means to help them see the importance of what they're doing. And it looks incredible, repatriation of lions in an area that hadn't had any in a long time, and it's a wonderful habitat.

(Corey Mason): Absolutely, a huge success story. Should be celebrated by everyone.

(Bill Jarrod): And thank you for your presentation. We'll have you on the panel later. Now, there's an old saying in the political world, that the mind can only comprehend what the bladder can stand. So, we're going to take about a five minute bio break here. Okay, we'll be getting set up (unintelligible).

Those people are back. Just a little housekeeping business, we're going to have a social get together tonight. At the end, we're going to take a couple of Ubers and go over to Bass Pro. There's a restaurant next to it that is a good restaurant, and it gives everybody an opportunity to walk around through Bass Pro, if they choose to.

For anyone who wants to go to another place, that's fine. But I think this is a pretty fun get together for those who want to, and that's for all the presenters as well as the council. Okay, next person is (Peyton West), and she's with Frankfurt Zoological, which I mistakenly once on the phone said Franklin Zoological to her.

(Peyton West): It happens a lot.

(Bill Jarrod): I knew better, (Peyton). Just at my age, you occasionally make a mistake on what you say. But she's going to talk about biodiversity laws and buffer zones in Africa. They do a tremendous amount of work over much of Africa, and about three or four different countries. So, (Peyton), the floor is yours.

(Peyton West): Thank you so much, and thank you to the council for the invitation to be here today, especially to (Chris Hudson), who I really had a fun time getting to know over the past few years, and I think that's why I'm here today. So yes, I'm (Peyton West). I direct the American affiliate of the Frankfurt Zoological Society.

FZS is what we call ourselves, and apologies for the "zed." That's what happens when you're from Europe. We're one of Germany's oldest wildlife conservation organizations. We were founded in 1858, originally to start the zoo. But we separated, and now we're an independent global conservation organization with a mission to protect wildlife and ecosystems, focusing on protected areas and outstanding wild places.

So we're here today because of what we see as one of the biggest threats to conservation in Africa, and watching everyone else's presentations, I'm not sure whether I'm glad to be going last or not, because I'm pretty much going

to be telling you a lot of what you already heard, and I hope that means that, if I'm unclear, you'll already have heard it, so it's fine.

But anyway, as I think we've heard several times, the biggest threat I think facing conservation in Africa is the lack of land and what we're seeing happening to these hunting blocks, the fact that so much of the land in Africa is set aside for hunting. And right now, a lot of that is at risk, so any conservation that cares about conservation in Africa needs to care about this issue and needs to talk about this issue. So, that's why we're here today.

And just as one example, you've heard today but also I know you heard a presentation from the Tanzanian government, at a time when 81 hunting blocks have been abandoned. I think now it's actually more than 100, so we don't know what's going to happen to those blocks. But chances are, they're going to be converted, or at least overrun. So, this is a hugely important issue.

A little bit about me, I did my PhD in the Serengeti, studying lions, and I hope you guys will forgive me when I tell you my advisor was (Craig Packer). I know he's sort of a persona non grata to a lot of people, but at the time he was really the only person studying lions. It was a very long-term project.

My particular research was on the lions' manes, and I think what most people maybe don't remember about (Craig), or maybe you do, but my roommate at the time was also studying lions. Her name was (Carol Whitman), and this was the topic of her thesis. She was working in Maswa Game Reserve, while I was in the Serengeti.

This research, along with some of my research, was what preceded this particular guide, which I think was one of the first created. And (John), I think you've funded this guide.

(John): Yes.

(Peyton West): Sorry, go ahead.

(John): Yes.

(Peyton West): Yes, good. Anyway, so I know this is kind of a pioneering thing, and for (Craig), who was a lion researcher, to even consider the fact that hunting could be done sustainably raised - you know, you can imagine the kind of blowback he got for that. So, I give him a lot of credit for that, whatever he's doing now.

Anyway, all this to say that I have been sort of working in this world for a long time, and the issue of conservation and hunting is something I've been talking about and thinking about for more than 20 years.

Okay, so let me just - this is just a brief outline of what I'm going to be talking about. More information about FZS, because we're German, so you probably don't know much about us. Then I want to differentiate my talk today, is I want to put what we've been talking about into a broader context, because the loss of land in Africa is part of a much bigger problem, and I think by putting it into that context -

(Bill Jarrod): (Peyton), let me interrupt just a second. Some in the back - so if you could get a little closer to the mic, keep in mind most of this room has shot a gun way too much and don't have very good hearing. So, that was from the back.

(Peyton West): How is this? Is this better? Anyone? Okay. Alright, sorry. I'll try to speak more slowly. Okay, so by putting the conservation crisis in Africa into a

bigger context, I think we can start to think about other people, other stakeholders that might get involved, that need to get involved.

So, I will go sort of more global in the beginning, and also talk about protected areas in general, and then I'm going to go more local, because what FZS has to bring to this conversation and to this meeting today is a very local experience on the ground. So, I'm just going to be reporting what we see in three of our areas in Africa, hoping that this will be valuable to the council, and hopefully to come up with some steps for moving forward.

Okay, so some background about FZS, this was our - basically our kind of most famous director, and I'm not sure if you've ever heard of Serengeti Shall Not Die. It's a book that he wrote, and it was also a documentary that won the Oscar in 1960. It was the first wildlife documentary to win an Oscar. It really put Serengeti on the map globally.

And for us, it put FZS on the map, too, because this man was legendary. He was kind of like (David Attenborough) in Germany, and much of our funding now comes from people who saw him and loved him and left all their money to us.

So in Germany, it's not really a culture of philanthropy, but legacies are a big deal. So, just so you know more about us, a lot of our money comes from these legacies. Other than that, we're a membership organization, and we're funded by private donors, government donors, including Germany and the states, and by private philanthropists.

More than 60% of our money goes to our projects in Africa, but we work in 18 countries around the world. We're probably best known for our work in the

Serengeti, so this - like I said, this film was made in 1960, so our work there and our partnership with the government began more than 50 years ago.

This is really FZS's kind of MO. We go to a place and we stay there long-term. Okay, so specifically how we work, we prioritize biodiversity and wilderness. Those are the things we try to conserve, and when we pick areas, that's - those are the criteria we use.

So, we do this by working in specific protected areas, and we stay in these areas, like I said, for years. So, we've been more than 50 years in the Serengeti, we've been at a park in Zambia for more than 30 years, several parks for more than 20 years.

So, we have, I think, one of the very few organizations that work this way, specifically on protected areas, there for the long-term, and we form partnerships with the national authorities that take a variety of forms.

Some of these are co-management agreements, where we have equal responsibility for management decisions made in the park. Some of these are more of a technical advisory role.

So, in countries that have more capacity and more ability, like Tanzania, like our work in the Serengeti, we're more of an advisor. We provide financial support, technical support, but we aren't making management decisions, and we have other partnerships that sort of span - or, fall within those two extremes.

So, we focus on two main objectives in these areas. The first is resource protection, and that's basically law enforcement. It's just things like ranger training and vehicle maintenance and aerial surveillance and wildlife counts

for monitoring. The second of these is to reduce the conflict associated with living with wildlife, and these have all been covered very well already, so the basic tenets of protected area management and conservation.

And I want to kind of reiterate what I said before, which is that we're really focused on a long-term practical relationship with the governments, and when I say practical, I mean we are not kind of - we try to avoid trends. So, for example, we're not going to put drones in an area if we don't have rangers with cars who can actually act on that information.

We find that the most important thing we need to do is literally feed your rangers, train your rangers, house your rangers, give them shoes, give them tents that don't leak. You'd be amazed at how rarely, how seldom they have, you know, everything they need.

So, it also means, like the sort of practical approach, that we're ready to consider every type of solution to problems. We don't - we aren't guided by emotions. We really try to stay practical, and if you met some of our guides on the ground, these are not bunny huggers. They're not even scientists.

A lot of them come from a military background. They're just passionate conservationists, and they're just looking at the most basic answers to questions. And Richard knows, I think, one of our best project leaders, who I'll talk about a little later. But he can vouch for the fact that this is a guy who is not sentimental about conservation. He's really trying to do what needs to be done.

Okay, and like I said, we're in it for the long-term. It gives us a really unique perspective, I think. The kind of partnerships we've built have lasted decades, and they've withstood changes in policies, changes in government. So, we are

able to talk - or, we can tell you what's happening now and how it compares to what was happening 50 years ago.

There's very few organizations that have that kind of history, and I hope with that kind of perspective, we can provide some information here that you might not get from others. Finally, we're based on the ground. So our project leaders generally live inside the protected area. They raise up families in the protected areas, so they know everything that's going on.

This is, again, a very unusual situation. We're not, you know, in every state. But there are people who have lived in these parks for 12 years, for 20 years, so this is, again, just something that I hope will kind of lend a new perspective or useful perspective to you guys.

Okay. Alright, so now I'm going to go global, like I said before. So, I want to talk about the biodiversity crisis, because this is something that a lot of people are talking about, a lot of people are thinking about, and not all these people are making the connection between that and what we're seeing in Africa right now.

Some people don't even know there is a biodiversity crisis, though, and this is another problem. Everybody's heard of climate change, whether or not you agree on what the cause of it. We all know it's something we have to deal with. People don't know what the biodiversity crisis is. They don't know what it means.

But a lot of scientists think this is actually the greatest conservation challenge we're facing right now. I'm going to show you a graph that's kind of - I don't know, it's a little bit confusing, but I want to just show you the arrow. So, what that is right there is a biodiversity index, and all you need to know is that

the red zone is the zone of uncertainty and high risk, and that's where we're living in terms of biodiversity.

So, the biggest threat to biodiversity is habitat loss. So, we already heard that earlier, that habitat loss is the greatest threat to wildlife in Africa. It goes way beyond that. This is a threat. Species are being lost, 150 species a day, we think, we're losing, and these aren't just big species. These are small species. We don't know what this means for all of us, but we know it's not good.

So, this picture here, just so you know, we have a project in Sumatra. You can see that that area is now under cultivation. A year ago, it wasn't. This is one of the most biodiverse places on earth. There are Sumatran rhinos. I mean, I don't think rhinos, but there are elephants, orangutans, and tigers. These are some of the most critically endangered species on earth, and this is habitat outside the park. But they still use it, and now it's a palm oil plantation, and it's lost. So, you see places like this all over the world.

Okay, well this sums it up. Protected areas are our best hedge against biodiversity loss. They're absolutely critical. There are lots of different ways we're dealing with it, but this is the one we have to focus on, both the designation of protected areas and the actual protection of them.

The IUCN defines a range of classifications, from nature reserves, where nobody's really allowed to go, through national parks, where tourism is permitted, all the way to consumptive use. And every one of these plays its own critical role in maintaining biodiversity.

So now let's turn to Africa. This is a map of the protected areas in Africa. Everything on this map looks great. It's all nice and green, and there's a lot of - sorry, let me go back. There's a lot - there are a lot of them. So, it's a good

fraction. It's a good - it looks good on paper. But the situation on the ground is very different.

As we've already seen, the human population is growing faster than any other place on earth, and this is associated with much greater pressure on these national resources. So, many of these green areas are really at risk, and I'm going to show you another map right here. Some of you may have seen this. This was put together by the Paul Allen Foundation, after the elephant census in 2014, which shows the state of the most significant elephant populations in East Africa.

And the colors on this map are obviously very different than what we just saw. The red areas are where elephant numbers were decreasing. Yellow is stable, and green is increasing. So, you can see there are major decreases, at least in this population, in significant parts of elephant range, and most of these are protected areas.

So, it's pretty clear that a lot of these protected areas are not working, whether they're at national parks, game reserves, or other kinds of protected areas. So these declines, we know, resulted from a surge in poaching. This garnered worldwide attention. Many of us have spent a lot of time over the last five years, many of us in this room, in fighting this challenge.

And in our areas at least, we are actually seeing a reduction, and it looks like we're kind of on top of it. But again, you've heard this already. What that means is we really have to turn to these other challenges, which are more insidious, more threatening, and are flying under the radar for most people.

Using cultivation, livestock, bushmeat poaching, and tourism - so, I'm sorry. I'm basically taking bits of everybody's presentation and regurgitating them,

but in any event, it's good to know that we're all on the same page, I guess. Anyway, the tourism is interesting, because this is not what tourism is supposed to look like. It's not what people think of, when they think they're going to the Serengeti. They don't realize they're going to show up and see 20 vehicles.

This is not good for the environment, either. So, the people who pointed towards tourism as the solution to all of these problems, I would caution them to see pictures of this. Okay, so buffer zones. Buffer zones are any area around a national park. Generally, they're a core area with greater protection, and then a buffer zone is an area with some sort of use that's limited, that can provide a gradient of protection.

These areas are absolutely essential to the protection of national parks, and usually in national parks, it's just part of a greater system that's what Richard was talking about earlier, system syncing. So, a national park can't really survive by itself. It needs these buffer zones, and every area where we work is surrounded by buffer zones, and most of these buffer zones are for hunting, hunting areas.

Okay, so hopefully I've put the conservation crisis in Africa into a broader context, and now I want to zoom in to some of our particular project areas, to show you what we're seeing on the ground. And I want to emphasize that we, as FZS, are concerned with one thing, and that's maintaining the integrity of these ecosystems.

Whoever the stakeholders are in these ecosystems, we coordinate with, we collaborate with. We aren't asking - you know, we aren't telling people what they should do. The national government and the national and local communities, they decide how they want to use their land. Our goal is to help

them protect it, and to make it feasible for them to keep this land for conservation.

So when I tell you what we're seeing in our areas, it's from that perspective. I'm not drawing any conclusions. I'm just telling you what's happening in three places where we work. So, this is a map of our areas in Africa. There are eight of them, and I'm going to start with Serengeti National Park, which we've heard about from a few people already.

So we've been working in Serengeti, like I said, since the 1950s. A partnership with the Tanzania National Parks, TANAPA, is that old. Our role there is technical advisory role, and we provide financial support and technical advice. The park is 4,600 square kilometers. That's a big park, and it's part of a much bigger ecosystem that's around 26,000 square kilometers.

There are a lot of different protected areas in this ecosystem. It's a national park, but most of them are buffer zones of one form or another, and the ecosystem's driven by the migration of more than one million animals. These animals move through the park, and they also move through the buffer zone.

So, here's a map of the park, and you can see Serengeti is in the middle, and it's surrounded by game reserves, game controlled areas, and then on one side is the Ngorongoro Conservation Area Authority. The one is - I don't have - I needed this map later, but if you look to the right, you'll see the Loliondo Game Controlled Area. Keep that in mind. I'm going to come back to that.

But what I want to focus on right now is the Maswa Game Reserve, here on the left. So, Maswa is an incredibly important buffer to the Serengeti, primarily because it's adjacent to the most important area for rhinos in the park. Serengeti rhino population is one of the few in northern East Africa. It's

an incredibly important population. It's a growing population, and it unfortunately lives right on the edge of the park.

There are two million people living around the Serengeti now, so the pressure from people is huge, and we really need a functioning buffer zone there. But just to give you a sense of what the edge here looks like, the Maswa Game Reserve is on the right, and on the left is the cultivated area. We've already seen a picture like this.

This is what we call hard edge. It hasn't always been like this, but now cultivation has come right up to the edge of the reserve, and you can imagine the challenges with protecting these reserves. So Maswa is divided into blocks, and we have an amazing relationship with the southern block.

I'm not going to name any names here, but you probably all know who I'm talking about. There's excellent conservation on the ground in the southern part of Maswa. Richard laid out exactly what that looks like, and I think it's fair to say that all those boxes are being ticked there.

Communities are benefitting, wildlife is abundant, law enforcement is happening, and our rhinos are using that area and when they're there, we're happy, because we know we're coordinating and we know that they're safe.

Unfortunately, things are not the same in the north. When you go up north, you see, inside the reserve, the legal burning for charcoal, you see cattle, you see erosion, and you can see these cattle don't just come in once or twice a week. Those cattle are coming every day. So this is what you're starting to see, and this is obviously a huge, huge risk to the reserve.

There's very little anti-poaching. We really have no communication, TANAPA has no communication with the concession holder there. So this is a difficult situation, and this is what it looks like on the ground. And you can ask, "Why does this matter?" I mean, we're expecting the buffer zone to have a gradient of protection. It's not easy to do this on the edge.

We're expecting some kind of encroachment. But of course, for the rhino, what you expect and what you need are two different things. When the rhino go in here, basically TANAPA and FZS, we're all struggling to protect those animals. They're at high risk of poaching.

And there's an even bigger risk here. So, in Tanzania, not only are hunters abandoning their blocks, but the government - it's a very strange government, to put it mildly. The government has just decided, and I believe the president has just issued an order that the wildlife authorities evaluate every single protected area in the country to evaluate whether or not they still serve a function for conservation.

And if they don't, he's recommending that they be (unintelligible) and given over to communities. The scale, the possible scale here is enormous. We don't know what's going to happen, but that Loliondo area I pointed out to you earlier, that's at high risk. That's a huge, huge border with the Serengeti.

So, this is the threat we're facing, and I don't know that people understand it. And we can't afford to ignore it. So - and this is just Tanzania. So the other places I'm going to talk about, we're not quite here. But I think this is a stark reminder of where we can be heading.

I want to just quickly, so that the Tanzanians don't come down on our heads, point out that some of the game reserves are also being turned into national

parks. The problem with this, it looks good on paper but, like (Chris) pointed out earlier, the Serengeti is the only - one of the only national parks in Tanzania that actually generate enough revenue to pay for itself.

That money all goes back into the treasury, and only a fraction of it is getting back to the Serengeti. The rest of it is distributed among the other national parks, and it's not enough to protect any of them. So, when you add five new ones, that's going to impact the ones that they already have, and you're not necessarily getting better, you know?

You're probably getting less intense protection, and it's a wider range of parks. There's - the point is just that creating new national parks is not necessarily as good as it looks on paper. But kudos to the Tanzanian government for not just turning them into, you know, fields.

Okay, now I would like to take you to Zambia. Our project there is North Luangwa National Park. I'm not sure if anyone has ever been there, because it's super remote. I know (Jeff Crain) has been there, but unfortunately he's not here. Anyway, this is an amazing, amazing place. It's super remote, so it's one of the places that we were just talking about, which is who's in these places? Who's taking care of these places?

Well, we are. There's national parks, and there's also game reserves surrounding the national park. So, this is a 4,600 square kilometer national park. It has the only black rhino population in Zambia. That rhino population is there, because we put it there. Rhinos were extricated from the whole country and - in the 1980s, and we brought rhinos back.

(Unintelligible) brought rhinos back in the 90s, and that population is growing. We haven't had a single rhino poached there, which is a very

extraordinary accomplishment. And in fact, this year in North Luangwa, we didn't have a single elephant poached, either.

So, the work we're doing there is incredibly intense, and it's been incredibly successful. We've been there for more than 30 years. Our management model there is we've been working so closely with the authorities, and we're able to bring in enough resources that we really have a lot of input into management decisions, more than we have in Serengeti.

So, it's almost a co-management agreement, but not on paper. So, we contribute a big part of the budget and a lot of the technical advice. We train the rangers, we run the canine force, and we do a lot of community work as well. Like I said, this park is also surrounded by buffer zones and, in this case, they're game management areas, and the primary land use is hunting.

So, here's what this looks like. North Luangwa is in the middle, the light green, and you can see the game management areas all the way around. What's different about this project from Serengeti is our operational area actually extends into these hunting areas. So, we coordinate with all of the hunting operators in these areas.

And the situation here is very similar to the Serengeti in that, in some of these places, it's going incredibly well. There's a very strong working relationship, and we're able to coordinate, work with communities, training with community scouts, our anti-poaching work, and things are going very well in some of these places.

On the other hand, in some of these other places, they're not going well. So there, we're seeing money not reaching communities, the communities not

supportive of the park, and in Zambia, in these areas, these communities actually have the ability to change the land use if they want to.

So, we are looking at this and we're seeing what's happening in Tanzania, and we're worried that if the hunting operators are not, I should say, adhering to the regulations, which themselves are very good, communities may just decide they don't want these areas to be used for hunting anymore. So, this is something which is another reason why I'm here today.

This - these problems on the ground, I think, we have to be practical and look at them and can't - we can't pretend that everything is going well. Sometimes it is, and sometimes it isn't. And I think those nuances really have to be recognized in any sort of policy decision that gets made.

Okay, so what does this actually mean for North Luangwa? Anywhere where coordination's good, we've seen very, very low poaching, we're seeing abundant animals, communities are happy.

But where they're not, things are much different. Wildlife is depleted in many of these areas, and poaching is higher. And in one case, back to the point of the communities being able to change the land use, they've actually borrowed one of the hunting areas, one of the hunting operators from the area, because they're not benefitting.

And in Zambia, game management areas make up almost 80% of the protected area states. So again, there's a huge risk here, and some - not around our areas, but other blocks in Tanzania and Zambia have been abandoned, and there is right now a kind of land grab going on there, where we're seeing people kind of pretending to be hunters.

(Unintelligible) we're actually interested in minerals and in mining and in other forms, logging and other extracted use that will ruin these areas. So again, there are high stakes here, and I think, you know, again, there are good things and bad things. But we need to look at the situation on the ground and see if we can respond with nuance.

Okay, now I'm going to take you to Gonarezhou. This is our last project area. You've heard a little bit about Gonarezhou already, from Richard. This is in Zimbabwe. It is a project that we started 12 years ago, so this is one of our more recent projects, but it's still 12 years. So, it's pretty intense.

So, a lot of people are familiar with Gonarezhou, if they've heard of it at all, because of the elephants. So, this is a massive elephant population. There are approximately 12,000 elephants in the park that's 5,000 square kilometers. So, this is one of the highest densities of elephants in Africa.

Like Serengeti and North Luangwa, Gonarezhou is situated in a mosaic of protected areas, and in this case, they form one of the great conservation areas in Africa, which is the Great Limpopo Transfrontier Park. This incorporates land in Zimbabwe, in Mozambique, and it connects Gonarezhou to Kruger as well.

So our management model in Gonarezhou is unique. It's an actual co-management agreement with the national parks authorities, where we share equal responsibility for the management of the park. The director of the trust is an FSZ staff person who's secondment to the trust, which is an independent entity. His name is (Hugo). I've already mentioned him. He's - I hope you can go and visit this project. I invite you all to come and visit it, because it's really - it's an extraordinary example of what can be done in Africa.

Okay, so here's a map that shows the landscape around Gonarezhou. Gonarezhou is - you can see the number. It's number three, so it's that dark green area in the middle. It's surrounded by community land of varying types, and much of this is used for hunting. And of course, the major revenue generator is elephant hunting.

So I talked to (Hugo), and asked him - I told him I was coming here, and I asked him how he thought I should talk about Gonarezhou. He told me I should come to you all with a question, and his question is how can we help him not put up a fence around Gonarezhou?

So this is what I expected. This is a little bit of a different way to think about it, but this is how he explained it. So what we have around Gonarezhou right now is basically a negative feedback loop. We start with the fact that the park has way too many elephants. It's well beyond its carrying capacity. 12,000 elephants is more elephants than you need in 5,000 square kilometers, so these elephants desperately need these buffer zones.

They need to use these buffer zones, and the park desperately needs them to use these buffer zones, because the park is getting trashed. So, there's giant, beautiful baobabs that are getting trashed. There's not enough grass for the elephants. It's a very tricky situation. So the elephants aren't using the buffer zones, and that means to hunt elephant, you have to be close to the park, and that's happening more and more.

(Hugo) calls it peripheral hunting. So here's your negative feedback loop. You've got elephants sticking close to the park, you've got hunters shooting them on the edges of the park. Then they're even less likely to go to the edge of the park, so you get this situation where the elephants are getting basically trapped inside the park.

Here's what that looks like. So these dots here are collared elephants. So, we've put - we saw this anecdotally, but we're looking for corridors. So, how can we make these buffer zones useful for elephants? What needs to change? Where are they going? Where are the opportunities? What we saw really confirmed these anecdotal observations, that elephants are not using the buffer zones. They're staying in the park.

Elephants aren't stupid, as we know. Elephants are smart. They know that what they've got out here, outside the park, is a dangerous landscape. So on the inside of the park, they're facing resource depletion, competition with other elephants, and on the outside they're facing no anti-poaching, and they're facing hunters who are right on the edge, and the hunters have to be there, because if you're going to hunt, you need an elephant, and they're not going into the buffer zones.

So, this is what I mean by this negative feedback loop, just to show you again what that landscape looks like. They're just not - you know, they're not going out at all, and these are just a few elephants. But we've collared more elephants, and we have historical data that shows this same trend.

So, the other challenge -- and this is associated with that -- is the fact that because the elephants can't move through these buffer zones, they don't have enough ground and they're getting stuck on the edges. They're coming into more conflict with communities, and because communities aren't benefiting, because the hunting is not - it's not as successful as it would be if they were throughout the buffer zones, communities are less tolerant.

Communities are also not getting the benefits and the training that they need from the operators, and so communities want a fence. They are bringing their

livestock in as it stands. They're suffering from crop destruction, and people are getting injured by elephants. And the places where we've had to put up a small fence, we have very happy neighbors. In other places, we don't.

So the communities want us to put up a fence, and we don't want a fence. None of us want a fence. If there's a fence, we damage the entire ecosystem. If there's a fence, there is no hunting. This is what you see. So, this question to us is how do we help him not put up a fence? And his answer is we need to make sure that the obligations of the hunters are being met outside the reserve.

So right now, I can tell you this is independent of the fact that there is a hunting ban, a trophy ban in 2014. I can tell you there's an operator there who didn't hire a single ranger for 12 years, not one. So, that's law enforcement that could have been done and wasn't. So the only rangers in that area right now are rangers that we pay.

So I just give that as one example of the fact that everything - sometimes things work and sometimes they don't, and I think if we're not paying attention to those nuances, then we're not going to solve the problem.

Okay, so I've showed you what we're seeing in our three biggest project areas. Each of this - each of these has challenges. But I think I can summarize things quickly, and that's that there's just a lot of variability, like there is in any industry, in how well things are being managed in the buffer zones and how well conservation is happening in the buffer zones.

Our view is that this variability should be considered in any kind of policymaking. So, I don't think it benefits anyone. It certainly doesn't benefit wildlife, to put a blanket ban on anything. What would benefit wildlife is not

to penalize the people who are doing conservation well in order to punish the ones who aren't.

So, we feel - I think we all feel that those places where conservation isn't going well is just not there, when there are other organizations and other entities and other operators who are doing conservation well. We all pay that price, so I would argue that we can just look at that question and find solutions for that question, and we'll make a lot of progress.

So, I also want to say that, if it happens, all of the areas around our national parks are hunting concessions. None of them are photo. But I just want to say - and you've already heard from Richard, judging by the behavior of a lot of photo tourism companies, I have no doubt that we would see the same kind of variability if we had photo operators in the concessions around our parks.

This is a picture from Ngorongoro Crater. I'm sure you've seen pictures like this before. Those of us who value wilderness, those of us who value ethical photo tourism hate to see this. So, we have to think about that as well. So, as we discuss solutions, I'd like to conclude with just three points, and one of this is about protected area financing.

We know that protected areas work, but they only work if they're actually protected. I'm going back to this elephant census map from before. So, those three circles are the three areas I just talked about: Serengeti on the top, North Luangwa in the middle, and Gonarezhou on the bottom.

So, those three areas where we've been working, where those areas have been adequately financed, elephant numbers either increase or remain stable. So, financing is a key part of this. So, for us, over the last - we used to be able to fund all of our areas with our own endowment. We can't do that anymore.

With a growing population and the growing threat, law enforcement and protected area management is just more expensive.

So, I don't know if it's reasonable to expect wildlife to pay for itself anywhere, and I think it's incredibly important that government recognizes that and be willing to step in, not just to protected - not just to national parks, but to all protected areas. I don't think it's fair to expect it to be done fully by private enterprise.

We did an internal analysis to look at the spending needs in protected areas in developing countries around the world. If you look at the absolute minimum number that you need to protect an area -- which we estimate can be around a million dollars a year, depending on the threats, but in general, that's your minimum level -- we need twice as much money as we have right now.

And the answer to that is there's really three answers. One is American billionaires, one is American government, the other I think is the German government. The German government is the biggest funder of biodiversity in the world, and we, as FZS, have an MOU with KFW, which is the German Development bank.

And we're working with them to try to address this problem protected area, buy protected area, so we can make sure that money goes straight to the ground. And I hope that's something we can talk more about and work more together on, because I think there's a role for the US government in this, too.

So the next thing, this is just reiterating what everyone has said. Communities are at the heart of this issue. If communities don't benefit, the land will not stay protected. In some cases, they can actually make the decision themselves, but in other cases, they're making decisions to bring their livestock in through

cultivation within the protected areas. We have to stay engaged with them, we have to help them.

It's easy for us to come to Africa and look at a picture or look and see it like this, and we think it's the most beautiful thing. For me, it's the most beautiful thing in the world. If you live there, things look very different. This is what that same thing look like from the other direction. Here you are, you're in Maasai. Those guys are running, because a pair of lions are coming straight at their livestock, so things look very different to them.

And, unless we deal with that, this is what we're all going to be looking at, and I think this is a lion that was poisoned. So, I would challenge anyone who looks at a picture of a lion with a hunter next to it and gets all emotional, look at this picture. This is a poisoned lion. We're not choosing between a hunted lion and a lion like we just saw. We're choosing between hunted lions and poisoned lions, and not just one poisoned lion.

We're looking at eight poisoned lions, and then we're looking at 50 poisoned vultures. This is the choice, so there's no room for these emotional decisions in this environment. We have to look at communities, what they've chosen to do with their land, and figure out how to avoid situations like this.

So finally, I want to share a quote from the book I mentioned before, Serengeti Shall Not Die. This is an introduction by (Allen Moorhead). If you read this quote, we made - this was written in 1960, and look what he's saying. Even then, everybody was afraid that we weren't going to see animals. You know, that we were going to lose the Serengeti, that these things that they - that we value so much would be gone.

But here we are, 60 years later, and this is not true. This has not come to pass. We are those children. We can see these things now, and our children can see these things now. So, if you can dedicate yourself to these things long-term, you can keep these areas safe. But as for our children's children, I don't know if we can get there, if we want to get there, if we want to maintain this kind of biodiversity, this kind of wildlife, these protected areas.

We have to work together. It's not our job, it's not our right to insist that people live with wildlife or tell them how to use their land. Those decisions are made by governments and they're made by people who live there. But what we can and what we should do is to provide our support, so that these unavoidable costs of living with wildlife are balanced by meaningful benefit.

So the final point I want to make is just this. All of us who care about the threat of habitat laws and about conservation in Africa and who want our children's children to experience nature the way we've been privileged to experience it, we all have to up our game. Governments, NGOs, funders, hunters, photo tourism industry, we all need to shine a light on our own work.

That's us. That's you. That's everyone. I mean, we can't afford to hide. We have to put aside our differences and we have to come up with some new stakeholders. We have to bring people into this debate that might not want to be there. We have to force people who are thinking emotionally to tell us what their solution is for these vast areas, if they're going to get rid of hunting. So, I hope that we can come up with innovative solutions together. Thank you.

(Bill Jarrod): Thanks, (Peyton), for a very interesting presentation here. If we could get the two presenters prior to (Peyton) to go up, we will open up questions. I know (Olivia) was on the phone earlier, and had a question she wanted for Hannah. You still there, (Olivia)?

(Olivia Oprey): Yes, I'm here, with a question still.

(Bill Jarrod): Okay. Well, give them just a moment to get situated here, and (Corey) and Hannah have just joined (Peyton) at the presentation table here. You had a question for Hannah, right?

(Olivia Oprey): Yes.

(Bill Jarrod): Okay. Go ahead.

(Olivia Oprey): So, I (unintelligible) Ethiopia, and (unintelligible) populated by a lot of people. And to wildlife, that number has decreased (unintelligible). My role in this adventure was going to some of the (unintelligible) buildings (unintelligible). My question to you is (unintelligible) the villagers and local (unintelligible) who want to protect wildlife, the little bits that (unintelligible) there's no hunting (unintelligible).

(Bill Jarrod): Can you repeat the very first?

(Corey Mason): You cut out a lot. Is there - can you repeat that and maybe be really concise?

(Olivia Oprey): Certainly. So recently, I was in Ethiopia, in the Omo Valley, where wildlife populations have plummeted exponentially due to these roads that have - and infrastructure that's been put in place by the Chinese. My purpose was to go into various schools and educate about the role of wildlife conservation and why we need to protect our earth's animals and their animals.

Well, in an area where wildlife numbers have plummeted exponentially, where hunting couldn't take place anyway, what sort of incentive is there for

them to want to protect what's left, and how do you sell it? How do you convince them?

Hannah Downey: Yes, that's a great question, and I think it echoes the idea of a lot of the conversation today, has been surrounding trophy hunting. So the question is, what other incentive-based programs are there? And I mean, I think that this is a great opportunity for outside groups, outside governments, what be it, to come in and really have a stake in that, too.

I think, from kind of some of the stories (Peyton) was talking about were amazing. You have outside groups who are willing to actually kind of put their money where their mouths are and where their values are, to come in there. And so, I think this - the instance you're talking about in Ethiopia is a great opportunity to explore some of those other approaches.

And maybe that is a case where we need outside dollars from sources other than hunters to really come in and help boost that, and that's where then some of the ideas of existence values or paying - you know, outside groups paying for existence can really come into play. And I think there's a lot of room to get creative there.

Most of - I guess some of the most - the best examples I can think of are here in the states, groups that are willing to compensate ranchers for damage done by wolves in Yellowstone, when wolves were reintroduced. And so, these are - there are a lot of existing models out there that we're able to pull from, that don't have to just be for hunting markets.

(Bill Jarrod): Okay. So, any questions from the council? (Chris)?

(Chris): Yes, I have a question for (Peyton) with regards to the elephant management plan in Southern Africa, in those areas where they're overpopulated, Okavango Delta, Hwange Park, (unintelligible). It's almost we have a de facto management plan of overpopulation, and I was curious about whether Frankfurt Zoological Society has an opinion regarding the maintenance of unhealthy herds, which would lead to maybe a massive die-off and loss of calves.

Nature taking care of itself would lead to starving them to death over periods of tens and decades. Is that an ethically humane choice for our society to make? And is that, in fact, what is happening in those certain overpopulated areas?

(Peyton West): Yes. I mean, it's a really good question, and we're really debating this, because, you know, one can question - we never really know what a natural state of an ecosystem is. We know that things cycle, so it's possible that, over time, there have been super dense, you know, times when elephants were dense. But highly unlikely.

I mean, these are situations where landscapes have changed, and they just don't have as much land as they need. So yes, what's the answer? Do you let them die and then, you know, in the meantime, the ecosystem is completely destroyed? Or, do you try to move some of them? Well, you've got 12,000 elephants in Gonarezhou. You could move 5,000 of them. It's impossible, right?

Do you try to do, you know, some kind of contraception, also very hard? Or, do you do culling or what? I mean, I point - I think this is a very good example. I try to tell people you could hunt a thousand elephants in Gonarezhou and not feel it, so it's not - there's no good solution to this.

Whether - you know, whether you leave them - to my mind, the only solution is trying to open up corridors so that they can use more of that land and ease the pressure on the land, because no other one solution is going to solve the issue.

(Chris): Do you know whether Frankfurt Zoological has formulated any policies with respect to (unintelligible) and-or Germany that could facilitate foreign direct investment to its fans, the areas, protected areas around these parks, and to connect the corridors, say, for example, unused areas in southwestern Mozambique? Isn't that a policy area where the leaders, the governments around the world should probably focus on, if what we're trying to do is move these elephants out of these areas?

(Peyton West): 100%. I mean, I think there's room there for governments, there's room there for private investors. And on the Mozambique - I mean, I didn't even talk about the Mozambique side. That's a - I mean, I don't know. Richard, you might know more about that, but it's very - that's where all the poaching is coming from.

But there are two national parks on the Mozambique side which, if connected to Gonarezhou, could triple their habitat. So, we need to - if there's some way that governments or private individuals can get their hands on those buffer zones, those corridors, then yes, that would be a huge improvement. So, I think any money that can be put into that would be well invested, and I know Mozambique is very open to that right now.

(Bill Jarrod): Next question? I'm seeing none from the rest of the people on, at this point. All of you talked about habitat, and habitat degradation, and the biggest problem that we have in the future is going to be habitat degradation. I took

(Corey's) numbers and divided them out here, and if Africa increases a billion and a half people over the next 32 years, I think that's like 40,000 a day, dividing it out.

That's a little scary, but I know the social scientists are saying that our planet is going to increase a billion people in the next - let's see, it's going to increase a billion people in the next ten years. And that's what you read, anyway. And you divide that out, and that's 270,000 a day. (Unintelligible) once again, a lot of the population is in Asia.

How do we handle the habitat situations other than encouraging their governments to try to set up something like the Selous Reserve, trying to get communities around to buy into the deal? Without a community buy-in, all you're going to end up with some years from now is a Kenya-like situation where you have some national parks with some animals in them and nothing else on the rest of the landscape, because there won't be much rest of the landscape.

What are your groups doing to try to address the issue as far as habitat is concerned, and maybe encourage their governments to work with their communities in supporting wildlife conservation? And that's a broad question. It's more of a statement than a question.

But I don't see much way that we're going to have wildlife other than national parks in the future, without something like this. So, that's some big set aside areas without communities involved, and generally it's going to have to be paid for by those who support hunting and sustainable wildlife.

Hannah Downey: Well, maybe I can start. I might have the easiest part in this, because PERC is a research organization, so we aren't actually on the ground. So, I don't have

to speak to exact steps we're taking. But in terms of some recommendations and ideas that we'd like to share, in thinking about the broader concept of development and human growth, right, is the idea that people have to go somewhere.

People need habitat as well, and so with all this kind of (unintelligible) I've discussed to some extent is just about those tradeoffs. And so, how do we find ways that value wildlife and value that habitat in a way that that value is competitive with other values?

And so, in thinking about broader development schemes, one that's going to be finding those kind of market structures I've discussed that do provide economic value to wildlife, but also thinking about broader development structures and considering, you know, where are the best places for cities to grow?

How do we get creative with some of those designs, so that we maybe preserve open space and have that be an asset to living somewhere, rather than kind of unnecessary, for lack of a better word?

So, those would be some of my suggestions, is thinking about how do we structure development, not only so that we kind of compact people in areas where it's best suited for that, so that we're then able to have areas that are left for wildlife, and value for wildlife.

(Bill Jarrod): Thank you.

(John): Hey. Oh, I'm sorry.

(Bill Jarrod): Go ahead. (Unintelligible), (John).

(Corey Mason): Just real quick, so, (Bill), there's a short and a long term to that, and the short term is we cannot wait for the long term to occur or the systems will collapse. If we continue to run elephant herds at 200% plus carrying capacity, the systems will fail. I can give you examples within 200 miles of here, there were historically overgrazed sheep and goat country in the Texas hill country.

It was overgrazed to the point of erosion, and now there's no topsoil. It is rock. That's occurred now. Those systems are close to biologically dead. All that grows there is ash berry juniper, that's it. And so, those systems have changed ecological function and capacity in a very short time period. All that occurred in less than 100 years, 75 to 50 years.

And so, many of those same things can and will occur in these systems in which more and more wildlife species are forced into less and less habitat. And so, that requires policymakers, advocates, shared stakeholders to have those conversations with whoever they may be, within respective governments, communities, et cetera, those that have a vested interest not only in the wildlife habitats but obviously the species in which inhabit those habitats, to maybe even start making prioritizations.

You know, this is where we are going to choose to try to wild - manage some wildlife species within said country or said communal area, recognizing through time, there will be development in the sense of people proper for the infrastructure associated with people: food, subsidies, et cetera, livestock, agricultural production, whatever else.

And so, at some point, like any management anywhere in the US or the rest of the world, you have to prioritize where you're going to put your financial resources in the sense of wildlife conservation and where you're not.

(Bill Jarrod): Good point. (Peyton)?

(Peyton West): Well, I'll, I guess, speak to the question of how we're working with governments to do that, because it's very challenging. So for example, in Tanzania right now, you really can't work with the government at all. Nobody's saying anything. So, you talked about the dam and the Selous. It's actually unfortunately more complicated than that, because the dam is in a photo tourism area of the park.

So, it's not - the fact that those hunting blocks are banned, it actually has nothing to do with the ban. And what he's jeopardizing - and what we're jeopardizing in that photo area - it's a photo area, which is very lucrative. So, he's destroying a photo area that's bringing in a lot of money. That's not really a rational decision, and we know that the dam's totally not going to provide what it wants.

So, in a lot of these cases, you have changes in government, changing priorities. We feel, and as FZS, we really focus on the ground. So, we try not to get into these kind of policies decisions. We want to keep things going on the ground.

Sometimes I think we just have (unintelligible). Like, we're keeping things at bay and we're hoping that organizations who do policy, who, you know, have experience in government can take those conversations further, and meanwhile, we're there holding the fort.

(Bill Jarrod): Very good. Thank you. (John)?

(John): I have so many questions, and I can't ask any.

(Bill Jarrod): We'll allow you two.

(John): Oh, thanks. Okay, I thought your chart showed that the elephant population was increasing in the Selous. Did I misread that?

(Peyton West): No, it actually isn't increasing. There is just a survey, and it's stable, which is not (unintelligible).

(John): Yes. They just completed a new survey, and I don't have the results yet. Do you know?

(Peyton West): I don't have the results.

(John): Of the survey in Selous?

(Peyton West): Yes, so the results are that it hasn't changed. There's no increase. So, that's where it is. It hasn't decreased, but it hasn't increased.

(John): Thank you.

(Bill Jarrod): (Andrea)?

(Andrea Trapich): Great presentation. Thank you very much for all the information. Hannah, a quick question for you. You had a slide on there related to looking for opportunities to update the strategy on imports. So, I just wanted to ask, you know, what kind of feedback are you getting on some of those points that you brought up?

Like, looking at rural communities, market-based approach, hunting as a tool, what kind of feedback from what kind of groups have you floated those ideas to, and what are you hearing from others?

Hannah Downey: You know, that's a great question, and these are some ideas that we're working on circulating. I will say my colleague, (Katherine Spencer), who I mentioned, was instrumental in preparing these remarks. She's kind of taking the lead on some of that, so she can certainly get back to you with some more details with that.

However, I do know that she's working with various hunting groups and other conservation groups kind of on the ground in Africa and around the states, looking at some of those ideas. Unfortunately, I can't provide you with much more detail with that, but I'd be happy to provide it in follow-up.

(Andrea Trapich): Great, appreciate that. Thanks.

(Bill Jarrod): Other questions? Normally, we'd just allow the council and our people here to ask questions. If you'd like to make a comment, we do have up to ten minutes. Okay, and you guys can leave it right here. Okay, a hand was raised over there. Okay, I think we have asked all the questions. I'm not sure everyone has asked them all, but most of us have.

I appreciate the presentations more than you know. You've done a great job on the presentations. We've enjoyed it. I think everyone feels much more enlightened with the presentations that were given, and (Eric) has a couple of things here, and then we'll go to the -

(Eric Alvarez): Oh, we'll do it at the end.

(Bill Jarrod): At the end, okay. If we could, then, (Eric)? A great round of applause for our presenters. If we could, then, go to any public comment that has to be made?

(John): (unintelligible) first commenter would be (Anna Seidman). Please come on up, and anybody who wants to speak, if we go from the front table where the microphone is situated?

(Bill Jarrod): Okay.

(John): (Mr. Jarrod), if you would like, we can also open the floor up to anybody, to come up in five minutes afterwards, after (Anna).

(Bill Jarrod): Certainly. We want to be as open as possible. (Anna)?

(Anna Seidman): Good afternoon. I'm (Anna Seidman). I'm Director of Legal Advocacy and International Affairs for Safari Club International. And I want to say that, to the presenters, that I appreciated the - all of the talks. They were extremely informational, extremely helpful for someone like me, who works in this field all the time.

Just a few brief comments to the council, in hearing the presentations today and also the presentations in the last several meetings, I keep returning to the question of what can this administration do to address the problems that are being raised by each of the presenters.

And there are many things, but I've come up with three key or three categories that I think this administration focuses on, when it addresses international wildlife affairs, and I have a comment on each one.

The three items or the three areas that I think are in this administration's ability to work on our funding of conservation efforts, and that would include anti-poaching efforts, a second one would be removing obstacles to hunting, including removing obstacles to the importation of legally hunted species, and the third would be encouraging community-based conservation.

So, I want to go back for a moment to the first. In terms of funding conservation efforts, one of the things - certainly this is something that our administration already does and can do in response to some of the issues.

But one of the things that I faced in another meeting that I attended, which was a meeting of wildlife chiefs from around the country that was put together by the Fish and Wildlife Service, is that a number of the countries, African countries in particular, were critical of NGOs because they brought money in, started a project, and then left.

And that is not what the African countries are looking for. They're looking for assistance, they're looking for sustained assistance, but on the other end of the spectrum, they're also not looking for the US to tell them what to do. And we have a habit of doing that.

So, in looking for ways to support conservation, sustainable conservation projects, this administration has to walk a very fine line, and that is to bring funding and programs perhaps similar to some of the recommendations made by (Thomas Smitch), by (Craig Spencer), which are very innovative anti-poaching programs, but to bring those programs in and to make them self-sustaining.

And those actually are some of the key features of the programs that (Dr. Smitch) and (Craig Spencer) mentioned, is that they are not programs that

need to be simply funded. They actually are supported by the communities themselves.

The second issue that I thought this administration could work on is removing obstacles to hunting, and a lot of our presenters talked about those issues today. And I want to particularly call out Hannah, because I think she made some excellent recommendations in that area.

I thought I'd like to bring to your attention that the US Fish and Wildlife Service recently proposed a fix to some of the - or at least a start to fix this problem that we're addressing with importation, and that is the Fish and Wildlife Service, in June or July of last year, proposed an amendment or proposed amendments to the ESA administrative regulations.

And one of the proposed amendments was to change the process that the Fish and Wildlife Service has been using with respect to creating conservation regulations for threatened species.

Up till this time, there's been kind of a default with the regulations for threatened species, and the default was that the Fish and Wildlife Service would apply all of the prohibitions and restrictions applicable to endangered species that are part of the statute of the ESA and apply them to threatened species.

And in these new proposed changes to regulations, the Fish and Wildlife Service is looking to stop that process and to look at each new listing of a threatened species and to prepare a unique regulation that accommodates or addresses the issues for that species. Now, the Fish and Wildlife Service hasn't finalized that rule yet.

I believe the finalization is around the corner, but those proposed regulations address only listings going forward, not back listings of species that are also listed as threatened, and that may be perhaps the next step for this council, to ask, or for the administration to look into the existing regulations for species listed as threatened that require importation conditions restrictions permits and ask are those restrictions and prohibitions actually necessary and, more important, are they beneficial to the conservation of the species?

Finally, encouraging community-based conservation, and I have another perhaps concrete example of where this administration could look. I'm not sure if all of you are aware, but at the CITES Convention of the Parties that'll be taking place in May, one of the proposals that the parties to CITES will be considering is a support for the input of community - or of communities, of rural communities in the decision making for CITES.

That proposal was offered at a previous CITES CoP. It has been under consideration. It hit some possible roadblocks because the individuals who are considering it can't necessarily agree on means and methods. But the proposal is still up, and it's going to be considered at this CoP, and there are new proposals that have some specific recommendations - and I won't go into all the details now.

But what our administration can certainly do is support the input of communities, of rural-based communities in the decision making that affects the wildlife that we've been talking about, and that they are essential to conservation.

The last point I would like to make addresses a totally different subject, and it is to future council meetings, and I have a suggested topic to look - for this council to look into, with respect to hunting and wildlife conservation. And

that is FOIA, the Freedom of Information Act, and how it's being used to expose members of the hunting community and to place them in the public eye so that they can be criticized.

Our administration is addressing and dealing with numerous FOIA requests for information about importation of species, and many of these requests are not designed for conservation purposes.

They are designed to place the names and personal information of hunters in the public media, and I think that this council could take on this issue and address whether or not it is appropriate for our government, our Fish and Wildlife Service to release personal data about hunters and importers. Thank you.

(Bill Jarrod): Any questions for (Anna)? Thank you very much. Do we have anyone else for public comment?

(John): Yes, Mr. Chairman. We have (Wilson Scout).

(Bill Jarrod): Okay.

(John): So, if he would come up also and please introduce yourself?

(Bill Jarrod): Wilson?

(Wilson Scout): Good afternoon, everybody. Ladies and gentlemen, I'm very grateful that I was in attendance today. Numerous people in here I know, and I'd like to start off with (Peyton), (Corey), (Kirk), Richard, and Hannah. Thank you very much. I'm involved in conservation for over 35 years in my life, and this is one of the best panel discussions I've ever been involved in as a listener.

I've been to Africa over 50 times. I spent a lot of time in Africa. Some of the places, (Peyton), you were talking about, I've been to Luangwa Valley. I've been to Frankfurt Zoological Foundation places. I've seen the black rhino. I've seen the problems in Africa. I go to two to three times every year. I've been to Tanzania, I've been to the Serengeti. I've seen it. I've been around the game management units around it, Luangwa Valley and Zambia, Tanzania.

I've spent a lot of time in the Omo Valley. The Omo Valley, when my wife and I first went to the Omo Valley, we looked at the animals and the land was moving. There was tens of thousands of an animal called tiang. There's no - not one left. There was tens of thousands of southern Grant's gazelle. There's very few of them left.

There was thousands of Patterson eland. There's none left. There was elephant. There's none left. There was big population of southern gearneck, very few left. There was a big population of lesser kudu. They've been pushed to the mountains. There's none on the Omo Valley.

This is because of habitat destruction. This is because of human population, and this is because of poor management policy. I'm a seventh generation Texan. My daughter's an eighth generation, and I just had my first grandson, and he's a ninth generation Texan. I want him to see animals.

Back in the 1800s, a president of the United States named Theodore Roosevelt watched all land being consumed in the United States of America. He took action, and the action he took was game laws, national parks, areas for the wildlife. (Corey Mason) talked about the wild turkey. He talked about the pronghorn, the bighorn sheep, the Rocky Mountain elk.

You look at what happened to the grizzly bears just in the Yellowstone area, they're over capacity, just like these elephants we're talking about. There's overcapacity. We are here to manage the wildlife for the world and for the United States of America. Theodore Roosevelt did that.

Look at the populations now in the United States. We have more whitetail deer killed by the automobile in the United States of America than we do the hunters sporting. I've been to the Timbavate, spent a lot of time in the Timbavate. That's an area that Richard was talking about that's a buffer zone that's privately held around the Kruger National Park.

It's a wonderful place. Zimbabwe, I've been there. I've seen the overpopulation of elephant. I've seen the destruction of elephant. The destruction is so bad that nothing can live there. It's destroying the trees and elephant goes up and pulls - bulldozes a tree and takes one branch, and he takes the branch, not for the leaves.

He takes the branch for the stem and for the trunk, the bark of it. He eats it and moves away, and he bulldozes another one. When the trees are gone, the habitat's gone, the topsoil's gone, and the wildlife refuge or the habitat is gone.

I've been to Cameroon. I've seen them cutting the trees down. When the tree's gone, it affects the rain, affects the forest. There is no more forest. I've been to Asia. I've sat there on the top of a mountain, looking at the magnificent Argali sheep. Five different species of Argali sheep I've had the luxury of watching.

We have policy over sound science management. Why? Why are we disregarding the sciences? Why don't we tell the schools not to produce any

more science? Because we know better than the scientists. Where's the next generation? In this whole panel, in this whole people, we never talked about the future of the next generation. Where are the children? What are we doing about the next generation?

I've been to Bale National Park in Ethiopia. They've cut all the trees down. There's - I could show you a slide from a private pilot. I flew over the Bale National Park, and I got real low and I looked, and the people - it's against the law in Ethiopia to have people come in the national park. There are thousands of people, thousands, maybe 5,000 to 10,000 people living inside the Bale National Park right now, cutting all the trees down.

So, I hope this panel - I'm grateful for the United States of America putting this together. This has really touched me, and I hope you listen to what is said here. We need some policy to change in this United States. I don't think we need to be telling these countries about how to manage their wildlife personally, but I think we need to listen to our scientists and our biologists. Thank you very much.

(Bill Jarrod): Thanks, (Wilson). I know there's at least one written statement that was submitted, that will go onto the record as well. Is there anything else at this point that - any other discussion that needs to be done? If not, (Eric), tell us what we're going to be doing tomorrow, if you would?

(Eric Alvarez): Yes, sir. So right now, we are going to have subcommittee meetings starting at 8:00 for two hours, four subcommittees, each 30 minutes. And it's going to be - and for folks on the phone, you can call in when your subcommittee is up. You don't have to be on the phone for the whole time. We have Conservation at 8:00 am, Trafficking at 8:30, Communications at 9:00, and Policy at 9:30.

So, it'll be an opportunity to sit through some discussion, and this is closed to the public. It'll be just a closed committee session.

(Bill Jarrod): Great. In light of the fact that several of our committee chairs were not able to be here, because of airline issues, why don't we start at 9:00 instead of 8:00? That should be sufficient time, should it not?

(Eric Alvarez): You're the chair.

(Bill Jarrod): I think we should start at 9:00, rather than 8:00, as we had in mind earlier that we would have each of the committees' presentations, and - because the committee chairman are not going to be here, it's going to be more difficult. So, if we could start at 9:00, I think that's plenty sufficient time to still get through by noon and move on.

(Eric Alvarez): So, 15 minutes each, starting at 9:00?

(Bill Jarrod): Yes.

(Eric Alvarez): Same order? So, that'll be Conservation, Trafficking at 9:15, Communications at 9:30, and Policy at 9:45, in this room. It'll be the same location.

(Bill Jarrod): Okay.

(Eric Alvarez): Same call-in line for folks on the phone.

(Bill Jarrod): For those who want to gather for the social gathering this evening, please be in the lobby at 6:00. And is there anything else, (Eric)?

(Eric Alvarez): Just one last minute. For all the members of the council, we will have thumb drives with the presentations for you to take home tomorrow. At the same time, for the council and others that may be interested, we have all the presentations on the Web site available for the public to look at.

(Bill Jarrod): Thank you very much. Thanks for everybody being in attendance and asking great questions, and thanks to the presenters especially, for just doing a phenomenal job. We're through for the day. See you in the morning.

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