ELEPHANT, RHINO, AND TIGER CONSERVATION

HEARING

BEFORE THE

SUBCOMMITTEE ON FISHERIES, WILDLIFE AND OCEANS

OF THE

COMMITTEE ON RESOURCES HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

ON

THE EFFECTIVENESS OF THE AFRICAN ELEPHANT CONSERVATION ACT OF 1988 AND THE RHINOCEROS AND TIGER CONSERVATION ACT OF 1994

JUNE 20, 1996—WASHINGTON, DC

Serial No. 104–77

Printed for the use of the Committee on Resources

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AFRICAN ELEPHANT, RHINOCEROS, AND TIGER CONSERVATION

THURSDAY, JUNE 20, 1996

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FISHERIES, WILDLIFE AND OCEANS, COMMITTEE ON RESOURCES,

Washington, DC.

The Subcommittee met, pursuant to call, at 10:10 a.m., in Room 1334, Longworth House Office Building, Hon. Jim Saxton (Chairman of the Subcommittee) presiding.

STATEMENT OF HON. JIM SAXTON, A U.S. REPRESENTATIVE FROM NEW JERSEY, AND CHAIRMAN, SUBCOMMITTEE ON FISHERIES, WILDLIFE AND OCEANS

Mr. SAXTON. Good morning. The Subcommittee will come to order. The purpose of this oversight hearing is to evaluate the effectiveness of the African Elephant Conservation Act of 1988 and the Rhinoceros and Tiger Conservation Act of 1994.

The Subcommittee has asked the witnesses to share their thoughts on what changes, if any, should be made in these historic conservation measures to better ensure these species are protected, whether sufficient Federal resources are being allocated, and if the grant program is funded in the most meritorious way for these projects.

[Statement of Mr. Young follows:]

STATEMENT OF HON. DON YOUNG, A U.S. REPRESENTATIVE FROM ALASKA; AND CHAIRMAN, COMMITTEE ON RESOURCES

Mr. Chairman, I compliment you for holding this oversight hearing on the African Elephant Conservation Act of 1988 and the Rhinoceros and Tiger Conservation Act of 1994.

The two historic wildlife conservation laws, authored by the bipartisan leadership of Congressmen Gerry Studds, Tony Beilenson, and Jack Fields, were designed to prevent the extinction of these three irreplaceable species.

By the mid-1980s, the population of African elephants fell by nearly 50 percent and poaching of elephants for their ivory tusks reached epidemic levels. While the world watched in horror as this flagship specie was systematical slaughtered, Congress passed and President George Bush signed into law the African Elephant Conservation Act. In fact, President Bush used the authority under that Act to ban the importation of all carved elephant ivory into the United States on June 6, 1989.

It is my hope that today we will learn whether the African Elephant Conservation Act has been effective in stabilizing or increasing the population of elephants, if the international price of ivory has remained depressed, and what type of conservation projects have been funded by the Department of the Interior.

Furthermore, the Subcommittee will examine the impact of the Rhinoceros and Tiger Conservation Act of 1994. While this law is relatively new, the task of conserving these species is much more difficult than elephants because rhinos and ti-

gers are highly endangered and products of these animals have been integral components of oriental medicines for generations.

Finally, the Clinton Administration has requested $600,000 for the African Elephant Conservation Fund and $200,000 for the Rhinoceros and Tiger Conservation Fund in FY '97. While this is the amount Congress appropriated for the current fiscal year, there are many who believe that this level of Federal assistance is inadequate.

Yesterday, the House of Representatives considered the Interior Appropriations bill. Incorporated within this measure was $1 million for the African elephant and $400,000 for the rhinos and tigers. This money is the direct result of actions by Chairman Ralph Regula and the Speaker of the House, who are committed to ensuring that our children and grandchildren have an opportunity to see these magnificent creatures in the wild.

I look forward to hearing the testimony of our distinguished witnesses on these landmark conservation measures.

Mr. SAXTON. Some of our witnesses have traveled across our country and the world to share their knowledge and experience with us. The Subcommittee welcomes you and looks forward to hearing your testimony on these two bipartisan landmark conservation laws that are designed to prevent the extinction of these irreplaceable species. At this time, I would like to recognize the former Chairman and ranking member, Mr. Studds, for any thoughts he may have.

STATEMENT OF HON. GERRY STUDDS, A U.S. REPRESENTATIVE FROM MASSACHUSETTS

Mr. STUDDS. Thank you, Mr. Chairman. I would not normally make an opening statement, but in honor of our retiring colleague, Mr. Beilenson, for whom this has been a passion, I would like to say a word if I may.

In 1733, Jonathan Swift wrote that, "Geographers mapping Africa over unhabitable downs placed elephants for want of towns." For better or worse, Europeans saw fit soon to rectify what they viewed as a shortage of towns with the colonization of the African continent. And along with that colonization came big game hunters and a booming global trade in elephant ivory.

Two hundred and fifty years after Swift penned that little poem, American consumers were indirectly responsible for the deaths of thousands of elephants each year, and the millions of elephants that had once stood on maps in the place of African towns were reduced to fewer than 700,000 animals.

This magnificent species was facing the possibility of extinction in the wild if the slaughter were not stopped. Fortunately, we were able to respond to the pending crisis and diminish, if not completely halt, the uncontrolled killing of African elephants for their dubious honor of emerging from the evolutionary process bearing a resource more precious than gold.

Although habitat protection and the pressures of industrialization continue to pose a threat to African elephant populations, this species appears to be on the rebound, thanks in part to the statute we are here to discuss today and to the extraordinary efforts of our colleague from California.

I understand that elephants, like the whales found off the coast of Massachusetts, are able to communicate over long distances by making deep rumbling sounds that humans cannot hear. If we

could hear them, I am sure the elephants would be thanking Mr. Beilenson for his work on their behalf.

I wish we could be as optimistic about the future of the other species these laws are designed to protect. Due to the continuing demand for rhino horns and tiger bones in traditional Asian medicines, and the deplorable illegal trade in tiger skins, these extraordinary creatures may be gone from the face of the earth by the time the Democrats regain control of this Congress. There is some hope, however, for both the rhinos and tigers and the Democrats.

Again, thanks to our colleague from California, to Representative Fields, who cannot be with us today, and to some of the folks who will testify this morning, we will be able to provide some funding for rhino and tiger conservation programs.

The battle to save these species from extinction is far from over, but at least the battle is joined. We must continue to do all we can through international cooperation and environmental education to ensure that rhinos, tigers, and elephants still exist for future generations.

We all know that extinction, like politics, is forever, and it is a very special privilege to recognize our colleague—my colleague whose loss will be immense to this institution and to the country, to say nothing of the heffalumps, the gentleman from California, Mr. Beilenson.

Mr. SAXTON. I would like to thank the ranking member for his statement, and I would just like to say that I for one hope that the tigers and rhinos and elephants recover much faster than the Democrats. I would like to bring forward at this point my friend, our colleague, Tony Beilenson, who was a member of the State Legislature in California; became very active and involved in this matter and matters like it. And so, Tony, we are anxious to hear from you this morning, and so you may proceed in the manner that you see fit.

STATEMENT OF HON. ANTHONY C. BEILENSON, A U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. BEILENSON. Thank you very much, Mr. Chairman. I have a relatively brief statement here so if I may, perhaps I will read the whole thing to you. Let me start off by saying that I really do appreciate this opportunity to appear before you to urge your continued support for efforts by the United States to help conserve African elephants, rhinos, and tigers—animals that have all suffered precipitous declines in their populations in recent decades and may well become extinct without our country's continued efforts to help save them.

And I wanted to commend you, Mr. Chairman, very much for focusing this Subcommittee's attention on the plight of these three magnificent animals by holding this hearing today. I want to thank my good friend, Mr. Studds, not only for his lovely words of introduction, but even more importantly, really, for his longstanding leadership in saving these magnificent animals.

It was because of him, with a lot of help from our friend, Mr. Jack Fields of Texas, that we were able to get the elephant bill finally passed several years ago. And his not being in the Congress

will be missed by a great many people even beyond the elephant populations who owe him more than they will ever know.

Mr. Chairman and Mr. Studds, as you know, the African Elephant Conservation Act of 1988 was enacted in response to the dramatic decline in elephant populations during the late 1970's and the 1980's, which had reduced the number of elephants from about 1.5 million a decade earlier to somewhere around 400,000 or thereabouts. Nobody I think knows or knew exactly, but it was a precipitous decline.

The Act provided for controls on imports of ivory, which prompted our then President, Mr. Bush, to ban the import of ivory products into the United States in 1989. And that provided an impetus for CITES to ban all commercial trade in elephant products that same year.

In addition, the Act established the African Elephant Conservation Fund which, for its size, has been one of the most successful efforts ever undertaken by the U.S. Fish and Wildlife Service outside our country to ensure the preservation of a species in its native habitat. Because of U.S. leadership and contributions to the International African Elephant Conservation Coordinating Group, every range country now has a specific short-term and long-term conservation plan.

Since its inception, the program has funded 48 elephant conservation projects in 17 countries, affecting over 200,000 of these elephants. These projects have contributed greatly to the success these countries have had in slowing the decline of their African elephant populations, as described just a few minutes ago by Mr. Studds.

The elephant fund helps protect other species as well. Because elephants play a very important role in the ecosystems they inhabit—because they use so much space, in short—funds spent on elephant conservation provide a tremendous boost to broad environmental protection activities in the affected communities by promoting sound ecological management practices, resource conservation, preservation of threatened ecosystems, and the conservation of many other threatened and endangered species.

Most importantly, our efforts have served as a catalyst in generating major contributions and technical assistance from nongovernmental organizations and from other donor nations, such as Japan and several European nations.

While we know the African Elephant Conservation Act has been a success, it is too soon to assess the Rhinoceros and Tiger Conservation Act of 1994, which established a conservation fund modeled on our elephant program. That program received its first infusion of funding just two months ago, and the amount it received was only $200,000. The low level of funding for fiscal 1996—only half the amount requested by the Administration—will severely limit the number and size of grants that the Fish and Wildlife Service is able to make this year.

It is regrettable that the United States is not doing more, at least not yet, to save rhinos and tigers. There are, sadly, fewer than 11,000 rhinos and 6,000 tigers left in the wild today, and their survival is becoming increasingly imperiled each year. Their num-

bers have declined rapidly in recent decades because of the demand for their parts and the poachers who supply that demand.

The number of rhinos has dropped by about 90 percent since 1970. Four of the five species of rhinos have lost more than half of their population in the last five years. The population of tigers has decreased by 95 percent during this century. Two subspecies of tiger have become extinct in the last 60 years, and the other three are in grave danger of becoming extinct.

Although all tiger subspecies and all rhinoceros species have been listed on Appendix I of the Convention on International Trade in Endangered Species, CITES, for many years, the prohibition on trade of those animals has not been well enforced in some Asian countries, where their parts are believed by many to have medicinal value.

Because of the strong cultural belief in the rhino's and tiger's curative powers, it has been an extremely difficult and complex task to eliminate trade in those species, much more so in some ways than curbing trade in elephant ivory, which is usually seen as merely a luxury item.

However, if the Fish and Wildlife Service has as much success with the rhino and tiger program as it has had with the elephant program—and we have good reason to believe that it will—we have a fighting chance of saving these two animals from extinction.

Projects which are proposed to be supported by the Rhinoceros and Tiger Conservation Fund include the black and white rhino sanctuary programs in Kenya and Botswana; India's Project Tiger, which has protected more than 80 percent of the world's remaining tigers, as well as new tiger conservation programs being developed in Thailand, Malaysia, and other Asian countries; and a project designed to bring together all Asian countries with tiger populations in common conservation effort with the United States and other developed countries.

What is most important for Congress to do now, Mr. Chairman, is to give the rhino and tiger program a chance to work, as we have the elephant program. It was very encouraging that the House Appropriations Committee raised the level of funding in the fiscal 1997 Interior appropriations bill to $1 million for the elephant fund, and to $400,000 for the rhino and tiger fund, from the fiscal 1996 levels of $600,000 and $200,000, respectively.

And I would urge the members of this Subcommittee please to do whatever you can to see that an adequate level of funding continues to be in this year's appropriations bill and in those in the years ahead. And, of course, it is essential that this Subcommittee continue to ensure that these programs are reauthorized on a timely basis.

Mr. Chairman, to end here, it would be unspeakably tragic, in my opinion, and I am sure in yours too, sir, if elephants, rhinos, and tigers—three magnificent and beloved creatures we have always thought of as part of our world—were no longer in existence.

With the rhino and the tiger, we are, in fact, perilously close to that point. But through these two modest programs, the United States is doing what it can to ensure that that not happen. I urge your continued interest in and your support for these programs.

And, again, I thank you, Mr. Chairman and Mr. Studds, both of you very, very much, for holding this hearing, and for inviting me to testify here today. We are going to have to leave it to you, Mr. Chairman—since Mr. Studds and I are leaving this great place—to you and some of your colleagues and friends the responsibility of saving these animals for our children and our grandchildren. Thank you, sir.

Mr. SAXTON. Tony, thank you very much for your continued effort to articulate the virtues of these programs, and certainly the members of this Subcommittee by and large agree with the thrust of your statement. And I would only point out that there seems to be an effort in the Congress as a whole to enhance these programs. As you know, the Administration made a request of funding this year, and the Congress virtually almost doubled one program and did double the funding in the other program for the——

Mr. BEILENSON. We were surprised and delighted, Mr. Chairman.

Mr. SAXTON. So we are hopefully moving forward in the right direction, and certainly I pledge to you and the ranking member our continued support for the programs.

Mr. BEILENSON. Thank you. It just occurred to me, perhaps if our two major parties adopted rhinos and tigers as our symbols, we would get some of our colleagues to be even more interested in saving them.

Mr. STUDDS. It worked with elephants.

Mr. SAXTON. Mr. Studds remarked about it worked with elephants.

Mr. BEILENSON. It worked too well. Thank you, Mr. Chairman.

Mr. SAXTON. Thank you very much. We are going to move on to our next panel. We are joined by our former colleague, an individual very much respected around the world with regard to his efforts for conservation, the Honorable Ron Marlenee, who is currently serving as the Director of Legislative Affairs for Safari Club International. Would you like to come forward, Mr. Marlenee? And Ron is accompanied by John Jackson, who is President of the Safari Club.

We will also hear from Dr. Michael Hutchins, who is Director of the Conservation and Science, American Zoo and Aquarium Association; and Mr. Matthew Malemba, Director of the SADC Wildlife Sector Coordinator, Department of the National Parks and Wildlife for Malawi.

Welcome and we are anxious to hear your testimony on behalf of our continued effort to support these programs. I understand that our former colleague has got to leave to take care of a personal matter, and so, Mr. Marlenee, if you would like to begin.

And I might remind each of you that while we will have a question and answer period, we would appreciate your being cooperative and able to summarize your testimony. And, of course, your testimony will be included in the record in its entirety.

Those three little lights in front of you, for those of you who have not been with us previously, are a reminder. When the red light comes on, it will remind you that your five minutes has terminated, and we would appreciate your concluding your remarks as swiftly as possible thereafter. Ron, proceed.

STATEMENT OF THE HONORABLE RON MARLENEE, DIRECTOR OF LEGISLATIVE AFFAIRS, SAFARI CLUB INTERNATIONAL; ACCOMPANIED BY JOHN JACKSON, PRESIDENT, SAFARI CLUB INTERNATIONAL

Mr. MARLENEE. Thank you, Mr. Chairman. And having attained some age, why, I can neither see too well nor hear too well so I may go over just a bit. I appreciate the opportunity to testify here and your having an oversight hearing.

I brought with me a summary, a report of the speech by the President of the Republic of Botswana that I think would add considerably to the understanding of the South African attitude toward conservation, and I would present this to you and hope that you would enter the remarks of the President of Botswana into the record.

Mr. SAXTON. Without any objection.

[Statement of the President of Botswana may be found at end of hearing.]

Mr. MARLENEE. Mr. Chairman, all is not wine and roses in regard to the administration of this Act. This Act originally was supported by conservation groups, also by bipartisan authors, Fields, Beilenson, Studds, who were both ranking members and chairman of the various committees that was a forerunner of this committee.

The Speaker of the House went to the well in favor of its funding. It originally passed a Democrat-controlled Congress by a wide margin. The African nations and wildlife professionals, who have been the target of selected trade sanctions, support this Act as a small modicum of replacing additional costs and huge revenue losses imposed on them.

With all of this wide support that the Act has, the signal should be clear, funded, and integrated provisions into government policy. However, there is one black mark among all the positive signals. The U.S. Fish and Wildlife Service apparently didn't get the signal. The Service places a low priority on funding the Act and, secondly, largely ignores, if not abuses, its provisions. I have dealt with this in my written testimony.

Respectfully, I submit to you that the Service should not be ignoring the express findings and policies set by the Congress, much less trampling on range nation programs. This is particularly true, and the policy statement is so recent and on point.

To quote, the Act says that, "It is the policy of the United States to assist in the conservation and protection of the African elephant by supporting the conservation programs of the African countries and the CITES Secretariat."

And, number 2, it provides financial resource. The Act should be administered to provide financial resources for these programs. The guidelines that were used by the Service and their present refusal to issue import permits for elephants for a number of countries that qualify under the AECA violate the first provision.

The denial of revenues from sport hunting that results when permits are not issued violates the second provision because sport hunting is one of the more significant financial resources referred to that is available to African countries for conservation, and for all wildlife species, and, very importantly, for the incentive to preserve habitat.

Mr. Chairman, when 82 percent of the mammals listed under the ESA are foreign species and the Service will not even recognize CITES quotas for U.S. imports, they have essentially gutted the ability of foreign wildlife professionals to pursue programs that give the indigenous people an incentive to live with and protect wildlife.

For indigenous people, survival becomes a key word. Agriculture for food replaces habitat for wildlife, and poachers have the opportunity to be heros who save crops and domestic animals instead of villains who are destroying a sustainable harvested resource that is professionally cared for and a source of income. This oversight hearing was desperately needed if we care about African wildlife and habitat.

Let me cite the tragic story of Ethiopia. The U.S. Fish and Wildlife refused to issue permits for elephant trophy imports from that country despite information that the revenue from elephant hunting supplied the revenue that was equal to one-half of the Wildlife Department's annual budget. The elephant hunting was the only means to get government game scouts into the field, and the presence of outfitters was the only effective way to reduce poaching.

The result of the refusal to issue permits was the termination of all safari hunting in Ethiopia for three years. Guess what? Poachers moved in and abandoned safari areas became killing fields. The stench of dead elephants hung in the air.

Some blame the U.S. Fish and Wildlife for killing those elephants just as surely as if they had pulled the triggers of the poacher's gun. They did this without so much as a consultation, and they did it over the pleas from the authorities. We can go down the list of countries and name one after another.

There are a lot of problems. However, there are two serious problems that we see with the administration of the AECA. One is the failure of the Administration to seek more money that is authorized for projects and grants under the law. The Administration's support has been weak, almost to the point of nonexistence. Since the Act's inception, the Administration has never requested even one-quarter of the amount authorized.

The other problem is even more serious. The U.S. Fish and Wildlife has disregarded the express language in the Act that the Secretary shall not establish any moratorium which prohibits the importation into the U.S. of sports hunted trophies of elephants. Instead, they are using the ESA as an excuse. The Service has imposed restrictions that have deprived these range nations of tens of millions of dollars in foreign exchange, and have simultaneously raised their cost unnecessarily. Mr. Chairman, I see that my time has elapsed. I do have about a minute of significant testimony left.

Mr. SAXTON. Why don't you go ahead and finish your testimony? That will be fine.

Mr. MARLENEE. The provision of the AECA that deals with its relationship to ESA says that, "The authority of the Secretary under this Act is in addition to the authority under ESA." If this is not clear, that this "additional authority" under the Act should be the controlling African elephant guideline, then maybe the committee should send a message—a very clear message or develop language for the Department to follow.

No question but the AECA was intended to express a congressional policy about a particular species within the framework of the U.S. effort to conserve endangered and threatened species. But somehow it became a stand-alone law. Those who administer the ESA seem to have forgotten that Congress has spoken specifically to the conservation and the protection and the import of trophy elephants.

Again, the AECA, in addition to language, and in spite of the fact that congressional policy has been expressed, the Service within two years of the passage began imposing restrictions so strict that they could not be met. In other words, their guidelines were a moratorium. There was protest after protest from range nations, wildlife professionals, elephant authorities.

However, the imperialistic attitude of the bureaucracy prevailed. It prevailed that is until a Federal judge threatened personal sanctions against the Secretary of Interior. Then the Service did a circle-about and circumvented again the intent and set up a different set of roadblocks. And with that, Mr. Chairman, I will submit the rest for the record. Thank you very much.

[Statement of Mr. Marlenee may be found at end of hearing.]

Mr. SAXTON. Thank you very much, Ron, for bringing your thoughts to us today, and we understand that you have some matters to take care of of a personal nature. And we appreciate very much your being here so when you feel the need to go, please do. And I understand Mr. Jackson is going to stay to answer questions.

Mr. MARLENEE. I am going to leave him to put out the fires.

Mr. SAXTON. OK. Thank you very much. Dr. Hutchins, I understand that you are here today to testify on behalf of Dr. Maple. And you are the Director of Conservation and Science of the American Zoo and Aquarium Association. We welcome you here today, sir, and you may proceed.

STATEMENT OF DR. MICHAEL HUTCHINS, DIRECTOR OF CONSERVATION AND SCIENCE, AMERICAN ZOO AND AQUARIUM ASSOCIATION, ON BEHALF OF DR. TERRY L. MAPLE

Mr. HUTCHINS. Thank you, Mr. Chairman. Dr. Maple has the following to say about the Elephant and Rhino and Tiger Conservation Acts, and, as you noted, I am here representing him. He extends his apologies for not being able to attend the proceedings today. These are Dr. Maple's words.

"I am giving testimony today as the Director of Zoo Atlanta, a fully accredited member of the American Zoo and Aquarium Association, also known as the AZA, and Professor of Psychology at the Georgia Institute of Technology.

"In my administrative role as director of the zoo, I lead a management team of dedicated conservationists who help to generate $1 million of private revenue annually to operate our conservation, education, and scientific programs. In the zoo, we house nearly 1,000 animals, including a breeding pair of African rhinos, three female African elephants, and a breeding pair of Sumatran tigers, one of the world's most critically endangered mammals.

"My remarks today also reflect what I have learned in conservation circles around the world. I have seen faceless elephants firsthand, the handiwork of Kenya's most brutal poachers. I have

searched in vain for black rhinos in areas where they were previously quite common. Mr. Chairman, I have searched in East African reserves where elephants were plentiful just a decade ago, and I have floated down riverine habitat alongside Sumatra's Alas River in search of just a glimpse of one of the last remaining big cats in all of Asia.

"In just my professional lifetime, some 30 years now, elephant, rhino, and tiger populations have plummeted. Like my colleagues who will testify before you today, I appreciate the efforts of our Federal Government to monitor these events and to intervene with effective conservation action when it is appropriate. We must act now before it is too late.

"Many experts will offer testimony on the Elephant Conservation Act today, and these individuals are better prepared to evaluate the effectiveness of grants that have been issued since 1988. I will mention one zoo-based program that I believe is particularly promising.

"At the Woodland Park Zoo in Seattle, Dr. Sam Wasser has been working for many years on techniques which permit animals to be identified by fecal DNA analysis. In 1995, Dr. Wasser received a grant from Interior's Elephant Conservation Fund for $35,000 to utilize this technology in African antipoaching programs.

"Soon Dr. Wasser and his collaborators will be able to accurately determine the geographic origins of migrating elephants and track poaching as it occurs. These and other new biological techniques have been pioneered in zoo settings, enabling field biologists to apply tested techniques as they solve real world problems.

"The lion's share of applied research in zoos is provided by earned revenue and private donations. The entrepreneurial nature of the modern zoo makes Interior's Elephant Conservation Fund a real bargain.

"The newer Rhino and Tiger Conservation Act has no track record as of yet, but it will surely augment the good work being done by zoos who have funded rhino and tiger programs for many years. The Minnesota Zoo has been particularly active in the protection of tigers worldwide. Their conservation programs are balanced with education, research, and field biology receiving equal attention.

"In 1995, the Minnesota Zoo initiated its Sumatran Tiger Project in Way Kambas National Park, Sumatra. This project gathers basic information about the distribution and habits of Sumatran tigers, while establishing a community-based conservation education program.

"Zoo staff from Minnesota are training Indonesian professionals to become future conservation scientists and leaders. AZA training programs, in demand throughout the world, are one of the zoo profession's best investments in the future.

"The Minnesota Zoo has also been funded by Exxon Corporation working with the National Fish and Wildlife Foundation through the innovative Save the Tiger Fund. From these sources, the Minnesota Zoo established their International Tiger Information Center. It provides an international forum for the exchange of information about tigers worldwide.

"This information data base went on line in September of 1995 and now includes a site on the World Wide Web and an information hotline: 1–800–5Tigers. The web site can be an exhaustive source of information and provide e-mail linkage for discussion groups among AZA's Species Survival Plan participants. The successful propagation of tigers in captivity is greatly facilitated by such accessible forms of communication and decisionmaking.

"The conservation crisis in Asia extends to both tigers and rhinos. Zoos are responding to this crisis with increased funding and dedicated personnel. The need is immediate in the case of both taxa, but Asian rhinos number only about 2,400 for all three species. The Javan rhino is down to a mere 75 individuals, and Sumatrans number only about 300 in the wild.

"The international zoo community has contributed mightily to rhino conservation. Currently, the private International Rhino Foundation, which has close links to the AZA Rhino Advisory Group, is providing $500,000 and directing another $750,000 for field conservation for rhinos worldwide.

"Current funding in the Rhino and Tiger Conservation Act represents a meaningful addition, but more will be needed if we are to stop the rapid decline of these creatures. Dr. Tom Foose of the IRF suggested 2 to 2.5 times the current appropriation" will be necessary. We greatly appreciate the fact that the House Appropriations Committee has recognized the importance of these Acts and nearly doubled the funding for fiscal year 1997.

Dr. Maple wanted me to mention that he has not "forgotten that Speaker Gingrich saved Interior's two 'Conservation Acts' from extinction on the Floor of Congress last fall. He noted then that it would be a huge mistake if we failed to exert leadership on this important matter.

"If other nations observe that America is soft on conservation, they too will be tempted to defer effective conservation action for short-term gain. We can and we should protect elephants, tigers, and rhinos. Future generations will surely judge us by the strength, timing, and duration of our commitment.

"America's Elephant and Rhino/Tiger Conservation Acts are a strong signal to others that we are serious about protecting the world's wildlife." Thank you.

Mr. SAXTON. Dr. Hutchins, thank you very much. I was privileged to hear Mr. Matemba yesterday in a little forum that we had over in the Capitol, and I must say that you are all in for a treat this morning to hear his testimony. I would just remind everyone that he is the Director of the SADC wildlife sector. I guess your title is Coordinator. Is that correct?

Mr. MATEMBA. Yes.

Mr. SAXTON. And we look forward to hearing your testimony at this time. You may proceed.

STATEMENT OF MATTHEW MATEMBA, DIRECTOR, SADC WILDLIFE SECTOR COORDINATOR, DEPARTMENT OF NATIONAL PARKS AND WILDLIFE FOR MALAWI

Mr. MATEMBA. Thank you very much, Mr. Chairman. Mr. Chairman, on behalf of the Government of Malawi and its Department of National Parks and Wildlife, I thank you for the opportunity to

testify regarding the effectiveness of the African Elephant Conservation Act of 1988 and the Rhino and Tiger Conservation Act of 1994.

My name is Matthew Matemba, and I am Director of National Parks and Wildlife in Malawi. I am also SADC Coordinator for Wildlife, which has the responsibility for coordinating issues relating to wildlife management within the 12 SADC member states in Southern Africa, starting from South Africa to Tanzania.

Mr. Chairman, it is our position that the Elephant Act and the Rhinoceros Act have presented important opportunities for achieving and maintaining sustainable wildlife conservation in Africa. An example of how successful these funds have been in meeting these objectives can be found in my own country of Malawi.

Last year, my Department received a grant of 30,000 U.S. dollars, which enabled us to provide emergency water supplies in drought-stricken areas. These water supplies undoubtedly ensured that significant numbers of elephants and other species did not die due to lack of water.

It is our sincere hope that funds granted under these two Acts will support wildlife conservation programs, that it empower local communities to work directly with wildlife conservation managers and experts in the range states.

Finally, the two Acts reflect an important first step on the road to conservation. Much more is left to be done. New models must be explored to replace old fence-and-fines approaches with more effective programs.

Given the conflict between preservation and human needs, Malawi and other African nations have increasingly turned to such new models of preservation that emphasize community-based conservation and development or CBCD. The strategies include linking local participation with conservation and development goals to create programs promising long-term sustainability.

In the past, enforcement regimes often failed to recognize that local communities competed for access to natural resources with wildlife. By establishing economic incentives for conservation, new CBCD programs address this critical shortcoming.

Mr. Chairman, success of CBCD programs in the range states relies upon the availability of markets for wildlife products. These markets depend on policy and regulations both on international level and within consumer nations such as the United States. Without legal markets for wildlife products, the landowner or occupier is unlikely to tolerate or to encourage wildlife on his or her land as it is simply a dangerous liability.

With the grants under the Elephant and Rhino Acts that have been vital fronts under Elephant and Rhino Acts, they have been helpful in supporting protecting efforts. More must be done to stimulate market incentives. First, transferring the elephant population of certain countries where there is proven capacity for effective wildlife management to Appendix II of the Convention on International Trade in Endangered Species, CITES, or to stimulate elephant conservation, assist local communities and support enhanced biodiversity.

Second, the United States should clarify the foreign species provisions of its Endangered Species Act by removing encumbrances

to sustainable trade in certain wildlife products. Despite our experience to the contrary, the underlying implication of ESA seems to be that trade in endangered and threatened species has a negative conservation impact.

By working with the range states more closely, the United States would be providing incentives and supporting conservation initiatives of local experts and not unintentionally undermining them as is often the case today. Specifically, more effective conservation under ESA would advance a more cooperative and productive atmosphere for wildlife protection.

Some have argued that existence of trade restrictions, such as the ivory ban, have been responsible for a decline in poaching and the stabilization of the African elephant. From our experience, stabilization of the elephant herd and poaching declines have occurred in nations with sustainable conservation programs. By contrast, population declines and poaching, after a brief decline, have continued or worsened in nations without such programs.

If continued, Appendix I listing of elephants or misapplication of ESA undermines the market underpinnings of sustainable conservation, the very stability that some observers point to will evaporate. It is our opinion that the funding provision under the Elephant and Rhinoceros Act will represent a tremendous opportunity for the U.S. Government to maximize the returns from its aid by making a significant impact upon both sustainable biodiversity conservation and the relief of human poverty.

I would urge the flexible funding provided by these Acts to be focused upon supporting and encouraging conservation approaches in which local communities are fully involved in the management of wildlife.

Finally, there is no doubt, Mr. Chairman, that in addition to adequate funding, the sustainability of African conservation programs will depend upon the tolerance of national and international trade regimes for carefully controlled and sustainable trade in wildlife resources. We encourage further U.S. conservation efforts to proceed in accordance with the framework of CITES.

Mr. Chairman, thank you and your Subcommittee for this opportunity to testify on the African Elephant Conservation Act and Rhinoceros and Tiger Conservation Act. And thank you to the U.S. Government for its continued support of Africa's conservation programs. We have come far in protecting African wildlife, but much remains to be accomplished. With your assistance and cooperation, I am certain we will achieve our mutual objectives. Thank you.

[Statement of Mr. Matemba may be found at end of hearing.]

Mr. SAXTON. We thank you very much, Mr. Matemba, for traveling as far as you have to share your thoughts with us here today. Let me just pursue with you for a moment, from your experience, have you seen good, concrete examples of where our United States programs have been helpful? And, if so, how have they been helpful? And do you also see where we might make changes of any kind that would make our programs even more helpful?

Mr. MATEMBA. Mr. Chairman, thank you very much. The programs that have been initiated by the United States Government have been extremely very helpful. They have assisted us in building the capacity and in being able to give the responsibility to the

local communities, to give them incentives, to be able to assume responsibility for the management of these resources.

This support that we have got is not really assisting us but transfers the responsibility to the local communities, who are the ones who get benefits from the conservation of all these resources. In approving these incentives, they cannot allow anybody to handle these animals illegally.

Mr. SAXTON. Now, yesterday, as well as today, you mentioned the role that is played by local communities, and you indicated that that role has been a very important and key part of the success of these programs. Can you elaborate on that and say why you think that is so very important?

Mr. MATEMBA. Mr. Chairman, thank you again. These programs have been quite successful because in the planning for this programs, right from the planning stage, right from the implementation of the programs, local communities, people who live side by side with these animals, have been effectively involved with it.

At every stage, they have taken part of it. They have been given the responsibility; but in assuming these responsibilities, particularly in empowering them, and being able to democratically participate in making decisions, they have assumed the whole responsibility of managing these resources. I think this is very key, that everybody saying.

In the past, they were denied these opportunities. All decisions were made from the top, and all that was coming down was an imposition. There was no carrot at all for them. We believe by empowering them, giving them the responsibility is extremely very important because they assume this is their property, and nobody wants to destroy his own property or her own property.

Mr. SAXTON. Well, I thank you for that explanation. We are struggling in our country with an effort to rewrite or reauthorize our Endangered Species Act, which works to preserve species here domestically in our country. And one of the efforts that we have made is to carry out changes in the program or suggest and implement changes in the program that would give our local communities additional responsibility.

And it is interesting to me that you have pointed out that this is one of the major reasons that in your country your programs have been successful, and I thank you for pointing that out for us.

Let me just pursue one other issue with you. I understand that the price of ivory subsequent to certain changes in international laws as well as in the United States laws—and the price of ivory dipped which was certainly a positive occurrence.

More recently, however, I understand that the price of ivory has gone up or escalated to some extent. Is that your understanding, and what kind of an effect do you suppose that might have on elephant recovery?

Mr. MATEMBA. Mr. Chairman, again, thank you very much. I have not been able to do much research on that. I would like to come back to you in written response after I have done my homework.

But, Mr. Chairman, I think the only response that I would like to advance immediately is that when an item does not have an immediate market, when the market is, you know, hidden, normally

what happens is the prices tend to go up because that item is not available in public. So that may have an effect, but the prices may not necessarily go down but probably are going up.

Mr. SAXTON. OK. Thank you very much. Would either Mr. Jackson or Mr. Hutchins, would you like to respond in any way to the latter question?

Mr. JACKSON. I could add that I think it is much like drugs. You know, they say that the price would go down if it was legalized. I think there is substantial evidence that bans only work on a short-term, not in the long-term. I think Atole Leopold said it in 1933 that there are two methods of managing wildlife—first, through regulation but the more important one, the second one, is through incentives. And we have only been dealing with one, and that is regulations.

Mr. SAXTON. Mr. Jackson, let me turn to you for a minute. Explain to me how sport hunting, in your opinion, tends to inhibit poaching?

Mr. JACKSON. We have done a number of studies, and I think it is a widely recognized wildlife management principle that hunting displaces poachers. It provides revenue to the authorities and as well as incentive for them to protect their wildlife. It produces revenue to the local people.

Our studies show three to five times the national revenue in hunting areas. It occupies the area. The way the Africans see it, Mr. Chairman, is that if you leave your house empty, the thieves will move in, and sport hunting occupies the house.

Mr. SAXTON. I see. Do you believe we would be effective in protecting more elephants if we or if the countries involved created additional protection through parks and reservations?

Mr. JACKSON. I think that is a fallacy, Mr. Chairman, that parks will save elephants. They have what they call the five percent rule, that no more than five percent of your habitat can be justified in a form of parks or protected areas. The real future of the elephant lies in its value outside of protected areas, where even the park elephants spend part of their time during certain seasons.

We have to give it value, or the great herds of elephants in Africa today will disappear by the turn of the century. Even if we save it in parks, that would just be glorified zoos. And the real key to elephant survival is something more than stopping the ivory trade. It is giving them value outside of protected areas where their fate is really going to be determined.

Mr. SAXTON. Now, your position then is that sport hunting is really one of the major factors which contributes to the protection of wildlife because it gives the right type of incentive to the game mangers, as well as the population.

I understand that the white rhino in South Africa has done well, and I believe your position may be that one of the reasons it has done well is because of the sport hunting that is associated with that species. Would you like to elaborate on that?

Mr. JACKSON. Yes. Thank you, Mr. Chairman. We are very proud of the role that the American sportsman has played in the recovery of the white rhino in South Africa. The parks, of course, were successful in protecting the rhino, and they sold surplus rhino to ranch

owners for as much as $250,000 apiece, and that provided revenue for the parks in tens of millions of dollars.

Likewise, the private landowners, therefore, had the incentive because of the sport hunting program to make those purchases and to invest in the rhino survival and to protect them and to breed them. And today we have 7 or 8,000 rhinos in South Africa. They have been downlisted, and they are safe and protected by people with an incentive to save them.

Mr. SAXTON. Thank you very much. Dr. Hutchins, let me just ask you a question that is certainly related, and I was hopeful that you might be able to relate this even more specifically for us.

Dr. Maple and I have become partners of sorts in promoting the better use of science in protecting endangered species certainly in this country and around the world as well. With regard to these programs and these species that we are talking about, do you believe there is need for more science, better science, more research, better numbers? Please elaborate.

Mr. HUTCHINS. Well, yes, I would agree with that statement 100 percent. I think one of the biggest problems facing wildlife, especially the large, very mobile animals like elephants, rhinos, and tigers, is that they move outside of protected areas. And they are also becoming more isolated in small pockets of natural habitat surrounded by a sea of humans.

And I think that the technologies that we are going to need to manage this type of situation in the future have not really been developed yet so there will be a great need for more science to attack issues like genetic management within national parks, monitoring of populations, and that type of thing.

I think there is a need for lot of new technologies. Some of them are coming out of zoos because we do manage small populations, while the same kinds of situations are beginning to happen in our national park systems all over the world. So the transfer of this kind of technology will be critical for the future of wildlife, and especially for these large animals; also important will be the application of science to mediating conflicts between wildlife and people.

I think that, in many cases, these larger animals are great threats to humans due to destruction of crops, for instance, when elephants move outside the national park system. Tigers kill people as well. And these are issues that can't be ignored.

I think if you are going to have incentives to keep these animals around, you have to address them. And there are very innovative techniques that are being developed through science to try to mediate these kinds of conflicts.

Mr. SAXTON. Is that information readily available to scientists? Is there a need for kind of a clearinghouse of information of any kind, or do the scientists basically know what each other are doing, and is that information available readily to policymakers in the appropriate places?

Mr. HUTCHINS. I am not sure that it is yet, and I think there needs to be better forums for these kinds of discussions. Scientists tend to like to work alone. They are often not very good at communicating with one another.

I think there is a need for this type of forum. I think the World Wide Web site does have information on what is going on with

tiger research around the world. But there needs to be a better system in place for the different people to communicate with one another and for us to assess what the priorities are.

And that is always a critical problem in conservation, to determine what the highest priorities are for a particular project so that the money—the limited funds can be directed in the right way.

Mr. SAXTON. Thank you. I would like to thank you all very much for being here with us today. I wish we had more time to pursue these matters with you. However, we have two additional panels, and we must move on so thank you again for being with us.

And we are going to move now to our next panel which is made up of a single individual who is the Assistant Director of International Affairs at the U.S. Fish and Wildlife Service, Mr. Marshall Jones.

Mr. Jones, would you come forward. I understand you have two of your colleagues with you, and if you would like to have them join you at the table, as they are already doing, that is fine. Thank you.

STATEMENT OF MARSHALL JONES, ASSISTANT DIRECTOR FOR INTERNATIONAL AFFAIRS, U.S. FISH AND WILDLIFE SERVICE; ACCOMPANIED BY KENNETH STANSELL, CHIEF, CITES MANAGEMENT AUTHORITY

Mr. JONES. Thank you, Mr. Chairman. I very much appreciate that invitation. I have with me Mr. Kenneth Stansell who is the Chief of our CITES Management Authority, and a number of members of his staff are also here with us, Mr. Chairman, and they also were the ones who set up this display which we very much appreciate your allowing us to do that.

It is a new program that we have been working on to educate consumers in the United States in the Asian-American communities about the need not to buy products that are labeled as containing endangered species, and we appreciate to have the opportunity to show it to you today.

Mr. Chairman, I also very much appreciate the chance to talk about these two very important laws, the African Elephant Act and the Rhino and Tiger Conservation Act. It is particularly timely that renewed emphasis is being given to these landmark legislative initiatives since these laws recognize that the United States is a party to the Convention on International Trade in Endangered Species or CITES, and as a major consumer of the world's natural resources shares responsibility for supporting and implementing measures to provide for the conservation of species, both at home and abroad.

The key element in both of these laws is the provision of financial resources to assist the people of developing African and Asian nations in implementing their priorities for wildlife conservation. In fact, conservation of the African elephant, rhinos, and tigers also remains an issue of enormous importance to the American people.

Mr. Chairman, the U.S. Fish and Wildlife Service has received more mail from individual Americans about these species over the past eight years than any other species of wildlife, foreign or domestic. Most of my remarks today, Mr. Chairman, will focus on the African Elephant Conservation Act, and I will attempt to summarize the key points which are contained in the written testimony which has been provided to you.

We believe that the African Elephant Act has been very successful. There is still much more work to be done. And we also appreciate the initiative which was taken by the Congress to adopt in 1994 the Rhino and Tiger Conservation Act, which is modeled after the Elephant Act and which we think can also make a difference in international wildlife conservation.

Mr. Chairman, at the time the African Elephant Act was enacted in 1989, elephants had declined by as much as 50 percent over the past two decades due primarily to poaching of elephants for the illegal trade in ivory. In response to this decline, President Bush imposed a moratorium on all commercial imports of ivory into the United States under the authority of the African Elephant Act.

This led the world community to transfer the African elephant to Appendix I of CITES and to place a world ban on the commercial ivory trade. Overall, we believe that this ban was extremely effective. We also recognize, Mr. Chairman, that there are countries in southern Africa which have legitimate concerns on the impact of the ban. And we are continuing to engage in a dialog with these countries to determine what else can be done to recognize the needs of all Africans.

We also note, Mr. Chairman, that in the last year or two there are reports of an increase in poaching in some parts of Africa. Thankfully, Mr. Chairman, not in the areas where we are providing our own financial support.

We would note that after the initial increase in the amount of donor support from the world community in general for elephant conservation which followed the ivory ban, slowly but surely that support has been drying up. And the African Elephant Conservation Fund now remains the only solely dedicated source of assistance to African countries for elephant conservation. But in the climate of an overall decrease in the amount of assistance which is available, poaching is on the rise.

Two things that one might deduce from that, Mr. Chairman. One, that we may not have found the whole answer, and we are still looking for the best ideas about what should be done next. But, number 2, Mr. Chairman, the fact that our work is certainly not done, and the Elephant Act continues to play a critical role in the continuation of support for the elephant and its protection. And we hope reinstitution of programs by other countries and international bodies can make a real difference to conservation of the African elephant in the next coming decade.

My testimony, Mr. Chairman, gives a number of examples of the kind of projects which we have funded, and I won't repeat them now except to say that there are two important principles that I think these projects show. Number 1, the elephant fund is small and flexible. We are able to respond quickly to changing needs and to give support to programs in a very short period of time. And we think that is very critical.

We have never asked for a huge program because we think that that is not something that would fit within the budget, but we also believe that a small and highly focused program is one that can respond to needs that are of the highest priority. And, secondly, Mr. Chairman, in a number of areas where these projects are in oper-

ation, we have seen a measurable difference. Mr. Chairman, I note the red light has gone on. I am almost finished here.

In areas where African elephant grants are in operation, we have seen a situation dramatically change from what one might have seen a few years ago with carcasses of poached elephants, today seeing families of elephants, reproduction, and even more importantly, seeing Africans who are benefiting from those elephant populations through ecotourism, through jobs created as a result of those elephant populations being there. So both the elephants and people in the local communities are benefiting very much as Mr. Matemba so eloquently summarized a minute ago.

Finally, Mr. Chairman, let me turn to the Rhino and Tiger Conservation Act. We only got access to the appropriations under that Act when the fiscal year 1996 budget was enacted a couple of months ago. And so we have not yet developed a full program. We do have some very interesting proposals, and in the next few months, we will be awarding the first grants under that program.

In addition, Mr. Chairman, we are working very hard to coordinate that program with other ongoing efforts; for example, the Save the Tiger Fund established by the National Fish and Wildlife Foundation. I serve as a member of the board which oversees that fund, and we think that that fund which is funded primarily by the Exxon Corporation but which more and more other donors now are beginning to also contribute to can make a real difference.

Mr. Chairman, I would also note that we have been very fortunate to have as partners in our elephant program and we hope in our rhino and tiger program many of the organizations which have appeared or will be appearing on the panel today.

And we look forward to close cooperation with those organizations, whether it be the Safari Club International, the World Wildlife Fund, Wildlife Conservation International, American Association of Zoological Parks and Aquariums, and all of the African countries that are so important, and Asian countries in the future.

In closing, Mr. Chairman, I would say that the findings made by the Congress in enacting the African Elephant Act still ring true today. I would quote, "Many African countries do not have sufficient resources to properly manage, conserve, and protect their elephant populations." And I think the same applies to rhino and tiger populations.

We believe the United States has responsibility, and we think that the African Elephant Act and the Rhino and Tiger Conservation Act, as they are currently written, are positioned to continue to make large contributions to the conservation of these species.

Mr. Chairman, I would be happy to answer any questions that you may have about any of the issues that I have raised or any of the other testimony which has been given.

[Statement of Mr. Jones may be found at end of hearing.]

Mr. SAXTON. Thank you very much, Mr. Jones. We appreciate very much your being here and recognize the strong advocacy role that you have played on behalf of this program. Let me ask you a question about funding for the two programs. First, in the elephant program, it looks like both the Administration and the Congress have stutter-stepped, and what I mean by that is that last year the Administration for the current fiscal year, which is last year that

we worked on, for fiscal year '96, the Administration requested about $1.1 million for the program. And Congress appropriated only $600,000.

For this year, I guess I know why, because the Administration requested about the same amount that was appropriated last year, and Congress appropriated a million. I don't understand the thinking process I guess.

Now, on the rhino and tiger program, in fiscal year '96, the Administration requested once again a level of funding at $600,000. The appropriators appropriated only $200,000, and this year the Administration requested $200,000, and Congress is apparently going to appropriate double that, $400,000. There seems to be a disconnect, and I don't understand.

Mr. JONES. Mr. Chairman, I am not sure that I can fully explain all that either. What I can say is that you have correctly summarized the basic situation. The African Elephant Act had been funded at a level of a little over $1 million for several years. In fiscal 1996, the Congress reduced that appropriation by half.

And as was noted by a previous witness, there was even a move to eliminate that funding altogether. And the Speaker very eloquently went to the Floor to speak on behalf of that level of funding as an appropriate amount for the American taxpayers to contribute to the conservation of these species overseas. And the rhino fund—this was the first appropriation we had requested. We requested $400,000 for fiscal year 1996, and, again, the appropriation was half of that.

In developing the President's budget for fiscal year 1997, it was determined that those levels—the amount that was actually appropriated by Congress for 1996 would be what the Administration would request for fiscal 1997. That was done in the spirit, Mr. Chairman, of the need for meeting the overall targets for a balanced budget.

My written testimony takes note that we have a large backlog of projects. There are no end of good projects much larger than we could have funded at any level of appropriation. And if the amount which was reported out of the Appropriations Committee and which we hope will be in—the action on the Department of Interior appropriations will be completed this morning.

It started yesterday by the full House. If that is the amount that is appropriated, although it is more than was requested in the President's budget, we certainly do have projects that we can effectively use it.

We are now in the process of starting to think about the fiscal year 1998 budgets, and, Mr. Chairman, we will be taking all these things in mind and would be consulting closely with your committee also in thinking through what is the appropriate level of funding to request for fiscal 1998.

Mr. SAXTON. Thank you. There are three aspects of these programs that I have noticed that have come forward in the testimony so far today. First is regulation which apparently generally takes the form of bans on certain types of imports.

The second is a category of incentives, which the Safari Club speaks eloquently in favor of in terms of sport hunting. And also the involvement of local community groups in planning conserva-

tion efforts because of incentives. And third, donor support from a variety of sources which moneys are then used to carry out various types of conservation programs.

May I ask you to comment on each of the three of these and try to tell us why certain programs work, certain types of categories of programs work, while others may not work as good, if that, in fact, is true?

Mr. JONES. Mr. Chairman, we think that all three of those are important; can work; do play an important role. It is how they are balanced with each other. The first issue on regulation, that is in the context of what we are talking about, the ban on the trade in ivory, as well as the ban on the trade in rhino horn and tiger bone since all of these species are listed in Appendix I of CITES, International Convention on Endangered Species. And we think that that is an important backdrop for everything else that we do.

We also recognize, as I mentioned during my opening statement, that there are concerns on the part of some Southern African countries about whether or not the ivory ban has been fair to them. And I think we would concede, Mr. Chairman, that those countries were asked to make a short-term sacrifice of some revenue which they might have gained from the ivory trade for the benefit of elephants as a whole because the international ivory trade system had simply shown itself not to be up to the job of keeping the illegal ivory out. And once there was some legal ivory, it was impossible to tell which was which.

We are continuing to engage in a dialog with African countries from all over Africa, as well as with countries from elsewhere in the developing world about what is the best approach to go from here on the issue of regulation.

At the last CITES conference of the parties, Mr. Chairman, which was held in Florida in 1994, South Africa put forward a proposal to engage in trade in elephant hide and meats, but not ivory. That was a proposal we were very interested in, and felt that we had a lot of sympathy for and had some basis. So we are not opposed to sustainable trade where it can clearly be shown to be sustainable.

On the other hand, regarding that proposal, we felt that South Africa also needed to consult further with its neighbors in Africa because there was, as it turned out, not a strong showing of support among other African countries for resumption of that kind of trade. And so South Africa eventually very graciously withdrew the proposal but accepted I think also the congratulations and support from the United States and from others for having contributed to the dialog.

That dialog continues as we look ahead to the next CITES conference, which will be taking place in a country which is in Mr. Matemba's part of the world, not in Malawi, but in Zimbabwe, in June of next year—about a year from now. And we will be looking forward to what kind of proposals are put forward and to engaging in a discussion about all these issues.

On the second point, Mr. Chairman, which had to do with incentives, we also strongly support the principle that people must be given an incentive to maintain wildlife. And I know, having been in Africa, and Ken Stansell just returned from Zimbabwe a month

or two ago, and every time we travel to Africa, we see the point very strongly that we cannot expect people who are living on the edge of poverty to graciously accept the presence of elephants which may come in and eat the grain which has been stored or indeed even kill people without helping them to gain an economic value from sharing their land, their habitat with the elephants for which it is also habitat. So we believe very strongly in that principle.

And Mr. Matemba pointed out how some of our elephant grants have helped his country, one of the smaller countries in Africa, and one of the very most densely populated countries in Africa, work with its elephant population. And we think it is a real triumph that a country like Malawi with a population density that is so high, nevertheless, they have been able to hang on to some elephants, and they are working now to try to build those populations up.

Mr. Chairman, Mr. Marlenee also brought up some points, which are not addressed in my testimony, and indeed he even mentioned some legal principles that at least for myself, I will say, that I have never heard expressed before. And that was the idea that provisions of the African Elephant Act would supersede any of the other legal authorities that we have.

We regulate elephant trophies under the Endangered Species Act. We have a special rule. It is a threatened species, and we have a special rule for threatened African elephants just as there is a special rule under Section 4[d] of the Act for a number of other threatened species including spotted owls, for example.

Under that rule, we allow the imported trophies provided we are convinced that it is being done on a sustainable basis. And we say yes to trophies from most countries. And I am going to ask Mr. Stansell in a minute to give you some of the statistics, Mr. Chairman, about those trophies.

In the process of developing that rule under the Endangered Species Act, to my knowledge, no one brought forward the idea that the Elephant Act should take precedence, and that those provisions of the Elephant Act that say that trophies from well-managed populations should be allowed to enter the United States would somehow mean that we should not have a rule that says we are going to look to make sure that the populations are sustainably managed before we allow the trophies in.

So I can't comment on the legal principle that he has asserted, but I will say that we will go back and think about that. It is a new one on us, and in our whole public comment period in the past on elephants, I don't recall that that specific argument has ever been made. Mr. Chairman, if I could ask Mr. Stansell to give you just an overview of trophies that we allow into the United States?

Mr. SAXTON. That would be certainly acceptable, but I would ask you to do it concisely, if you will, because we must move on to the next panel.

Mr. STANSELL. Yes, certainly. We issue approximately 1,000 sport hunting trophy imports permits annually. And in the last few years, about 800 of those permits have been for sport hunting of elephants from seven different countries. And the Service's position

has been that we fully support sport hunting as part of an overall program for wildlife conservation.

Mr. SAXTON. Thank you very much, and, Mr. Jones, thank you. We appreciate your being here with us today, and I am sorry we don't have more time because we could explore in great detail many other aspects. However, we must move on to the next panel.

Mr. JONES. Thank you, Mr. Chairman. We appreciate the opportunity to be here and to work with you and your staff.

Mr. SAXTON. Thank you very much. We are now going to move to our fourth and final panel. We are going to hear first from Ms. Ginette Hemley of the World Wildlife Fund; then from David Murchison who is President of the South Africa Wildlife Trust; and Ms. Dorene Bolze who is from the Wildlife Conservation Society; and Mr. Tony Fitzjohn who is Field Director of a game reserve in Tanzania. Welcome and, Ms. Hemley, as soon as you are all set there, you may proceed.

STATEMENT OF GINETTE HEMLEY, DIRECTOR OF INTERNATIONAL WILDLIFE POLICY, WORLD WILDLIFE FUND

Ms. HEMLEY. Thank you, Mr. Chairman, for allowing me to appear here today to speak on the effectiveness of the African Elephant and Rhinoceros and Tiger Conservation Acts. I am Ginette Hemley, Director of International Wildlife Policy at World Wildlife Fund. World Wildlife Fund is the largest private organization working internationally to protect wildlife and wildlife habitats. We currently support projects in more than 70 countries including many key African elephant range nations and almost all range states for tigers and rhinos.

Few species capture the world's imagination as elephants, rhinos, and tigers do, and, in fact, few species present conservation challenges as daunting and complex. The holding of this hearing is testament to the interest and concern that this Congress has in conserving these unique and spectacular species, and we commend you, Mr. Chairman, for making this issue a priority.

World Wildlife Fund would particularly like to thank Representatives Beilenson, Studds, and Fields for their leadership in helping to establish the special programs we are discussing here today that have proven so important in our global wildlife conservation endeavors.

The subject at hand is in one sense a relatively simple one. In our view, the African Elephant and Rhino and Tiger Conservation Acts, and, more specifically, the special funds that they establish are critical elements of conservation strategies that urgently require global support and a commitment from governments and nongovernment organizations alike to building lasting programs.

By making conservation of these species a priority and by working directly with the countries seeking assistance, the United States has established a model initiative for other nations to follow.

Mr. Chairman, you have already heard about the urgent needs and special challenges facing tigers, rhinos, and elephants in the wild. Following on the statements of some of the previous speakers, I would like to stress three points in my remarks today.

First, the African Elephant Conservation Fund, as administered by the Fish and Wildlife Service, has in World Wildlife Fund's view

proven one of the best conservation bargains around. As you know, it is very modest in size, averaging less than about $1 million a year in grants since 1990. But it has provided support to almost 50 projects in 17 countries.

With minimal overhead and bureaucracy, the Service has moved money efficiently to the on the ground field efforts throughout Africa both for emergency assistance, such as for the anthrax outbreak in Namibia in 1993, to broad community based conservation initiatives like the Dzanga Sangha Reserve Project in the Central African Republic where the highest known density of forest elephants lives.

This latter initiative in which World Wildlife Fund is a partner aims to protect some of the most biologically rich forests in Africa by working with local communities to fully integrate conservation and human development needs. Money from the African Elephant Fund has supported the operation of game scout and antipoaching teams to patrol the reserve, helping to recreate community incentives for wildlife conservation.

The Elephant Grants Program also supports a wide array of projects reflecting, in our view, the varying elephant conservation and management priorities across Africa. As elephant conservation needs around the continent have grown in complexity, so has the fund's project portfolio.

While in the beginning, most support went to antipoaching initiatives reflecting the priorities the aftermath of the illegal ivory trade disaster of the 1980's, the fund now also supports efforts to mitigate elephant-human conflicts, research to improve elephant management, and even translocations of elephants from areas of overpopulation. This, in our view, demonstrates an important responsiveness to the evolving needs of elephant range nations.

Second, Mr. Chairman, I would like to highlight another important characteristic of the African Elephant Fund—the fact that it has generated more than matching moneys from other sources in support of elephant conservation initiatives. That is, at least 5 million additional dollars have been raised to complement those funds provided by the U.S. Government.

Moreover, as a co-supporter of several efforts, World Wildlife Fund can vouch for the fact that the African Elephant Fund has provided seed moneys for projects that might not otherwise have been realized. One could argue that this alone makes the program worthy of support. It clearly provides an excellent model for public-private sector partnerships in conservation.

Finally, Mr. Chairman, I want to emphasize the importance of both the African Elephant and Rhino and Tiger Conservation Funds for the future of local wildlife conservation programs. What has made the elephant fund unique in the world is that it has been a reliable and continuous source of support since its establishment.

In fact, as Mr. Jones mentioned, it has been the only dedicated source of international funds for African elephant conservation over the last six years, as many of our African colleagues have been quick to point out.

Nowhere has this continuity of support been more essential than in the country of Tanzania, who lost an estimated 70 percent of its elephant population between 1981 and 1989. More recently, Tanza-

nia's Wildlife and Parks Department underwent a drastic 95 percent budget decline from 1989 to 1993 as a result of general economic deterioration and structural adjustment programs imposed by multilateral lending agencies.

Unfortunately, the situation is not unique in Africa. Elephant funds from the United States have been critical to keeping Tanzania's wildlife programs afloat for the last five years and to helping in the recovery of the country's elephant populations.

It is this kind of reliable support that will be critical to the future of tigers and rhinos because the rhino and tiger fund, of course, has just been established. We have not yet been able to see it in action. But as the Subcommittee knows, there are clearly no species in greater need of attention.

But, in fact, there is no better time to invigorate our international efforts to protect them, for in spite of the massive declines in numbers of most rhino and virtually all tiger populations over the last two decades, recent developments give us reason for cautious optimism.

And I wanted to just mention this, Mr. Chairman, because we hear so much about doom and gloom. We are, in fact, cautiously optimistic in some parts of the world that we really do stand a chance to turn the situation around for tigers and rhinos. But what it has taken clearly is infusions of money which have made all the difference.

Earlier this year, the World Conservation Union concluded that for the first time in perhaps two decades most rhino populations throughout Africa are either stable or increasing, suggesting that recent investments and strategies may have begun to pay off. This is encouraging news indeed, but we must be sure that this progress is secured over the long-term.

The example of the remarkably successful rhino conservation program in South Africa, where almost three-quarters of the world's rhinos live, also provides many important lessons that can enhance our efforts for rhinos in other parts of the world.

Similarly, projects like the Chitwan National Park Program in Nepal, where Indian rhino numbers have grown by 40 percent in the last eight years, is also an important model that we can use for other projects. The common thread to all of these stories is money and committed and continuous support.

We were extremely pleased to learn last week that the House Appropriations Committee has increased the fiscal year '97 support for the rhino and tiger fund from $2 to $400,000. While this represents only a fraction of what it will take to help tigers alone begin to recover in the wild, we know that a little can, in many cases, go a long way, both in aiding emergencies and building permanent conservation structures.

During the winter of 1993, the Siberian tiger population was devastated by poaching in the chaotic aftermath of the collapse of the Soviet Union. Since then, due to the combined external support of governments, including the U.S. and NGO's, the population has begun to stabilize, and poaching levels are significantly down.

Furthermore, as a result of political pressure from the United States, including the imposition of trade sanctions under the Pelly Amendment on Taiwan, as well as pressure from other countries,

we have finally begun to see dramatic improvements in the enforcement of wildlife trade controls in the main Asian consuming countries of Taiwan, China, and South Korea, the countries responsible for the vast majority of illicit tiger and rhino trade in the last several decades.

This is all to say, Mr. Chairman, that we may very well be on the verge of some important breakthroughs in our battles to save these critically endangered species, and support from the U.S. will be critical, has been critical, and will be critical in the future in securing these species.

We look forward to working with the Congress and the Administration in combining our much-needed forces and hopefully to increasing support for both the Rhino and Tiger and Elephant Conservation Acts in the future. Thank you.

[Statement of Ms. Hemley may be found at end of hearing.]

Mr. SAXTON. Thank you very much. Mr. Murchison.

STATEMENT OF DAVID C. MURCHISON, PRESIDENT, SOUTHERN AFRICA WILDLIFE TRUST

Mr. MURCHISON. Thank you, Mr. Chairman. The Southern Africa Wildlife Trust is a foundation organized under the terms of Section 501[c][3] of the Internal Revenue Code for the purpose of promoting and supporting wildlife conservation projects in the Southern Africa region.

The Trust was organized a few years ago by members of the African Safari Club of Washington, members who felt that they should become more actively involved in positive conservation activities in Africa. Many years earlier, other members had followed a similar course. I refer to Kermit Roosevelt, Russell Train, Maurice Stans, and several other members of that club who organized the African Wildlife Foundation and the World Wildlife Fund for the same reasons. So we are quite proud of our record as conservationists, even though our background is that of sport hunters originally.

The Trust has been supportive of these two statutes from the very beginning, and we want to commend, as others have here this morning, the authors of the legislation, Mr. Beilenson, and my long time personal friend and fellow sportsman, Congressman Fields of Texas, for their dedication and their perseverance in formulating this innovative approach to conservation.

And I should add that sitting near you, Mr. Chairman, is another person who made a major contribution to the development of these bills, and that is Mr. Burroughs. I remember well——

Mr. SAXTON. Be careful. He will want a raise, you know.

Mr. MURCHISON. I believe he deserves one, because I remember the many hours he spent in the preparation of this unprecedented legislation.

In the case of the African Elephant Act, there is little question in my mind, and this is based on firsthand knowledge, that it has been enormously successful in the region of Southern Africa. There can be no question about it.

The twin-pronged strategy of the ivory moratorium on the one hand and the finely tuned conservation projects on the other hand have worked, in my opinion, to bring about a reduction in the level

of poaching and in securing a stabilization of the elephant populations.

In my prepared statement, I describe the grant projects that I have administered under the statute, and there are some four in number that have dealt specifically with antipoaching measures in Zimbabwe, Zambia, and Tanzania, and another important grant that also included Botswana.

And I should say, Mr. Chairman, that we are pleased to have in this room today the Deputy Director of the Department of Wildlife from Botswana, who is not a witness, but who is observing the proceedings this morning.

By any objective standard, these projects have worked, and the level of poaching is down significantly. The result can be attributed to the way this statute was drawn and how it has been administered. At the present time, it is fair to say that the wildlife departments in these major countries of Southern Africa are equipped now to do the job. The threat is not over by any means, but we have played a major role in helping them cope with it.

I want to close by making two quick comments, if I may. Number one, during the administration of this Act, a little-known grant project took place in the southwest region of Zimbabwe at Gonarezhou National Park during the great drought of 1992, which is of historic significance. There a method was developed for the first time in history to relocate entire family groups of elephants that were dying of thirst to new habitats.

If you can imagine the difficulty of moving a 10,000 pound animal, not to mention an entire family group of such animals, that is what was involved there. The relocation technique was strictly the result of this statute. If it were not for the grant, it would not have occurred.

And so during that drought period, it was possible to move over 1,000 elephants to distant, more viable habitats, a singular achievement, one that holds great promise for the future conservation of the African elephant.

My final point concerns the testimony of representatives of Safari Club International. I am also a member of Safari Club International. I am proud of that membership. But I do not agree with some of the remarks made earlier by Mr. Marlenee. I think the people at the U.S. Fish and Wildlife Service have done the greatest job implementing a statute that I know about, and I have been in this city for 40 years.

And the record, beginning with President Bush, and followed by Connie Harriman, whose husband is a member of this House, Dr. Doug Crowe, John Turner, Marshall Jones, and Ken Stansell, has been a record for which we all should commend them. They have done an extraordinary job of saving the African elephant.

Now, on the matter of permits, I don't disagree with my good friend John Jackson. If permit procedures can be improved, fine. But when you get right to the meat of this thing, an enormously effective and successful job has been done, and they deserve our thanks, not criticism. Thank you very much.

[Statement of Mr. Murchison may be found at end of hearing.]

Mr. SAXTON. Thank you very much, Mr. Murchison. I had heard the account of the movement. I believe there were about 400 ele-

phants that were actually moved, and that was certainly a commendable activity. And I understand the grant process and the turn-around time was very crucial in that project, and it worked well.

Mr. MURCHISON. It was crucial, but if you will forgive me, I would like to say that it was a great deal more than 400 elephants. My last count was around 1,800.

Mr. SAXTON. Wow.

Mr. MURCHISON. And then the same method has been adopted at Kruger National Park in South Africa. Incidentally, there for scientific reasons, it has been necessary to cull each year up to 500 elephants because of the population growth. Using the Coetsee system, they now have been able to translocate—a couple of years ago I witnessed 150 of them that otherwise would have been culled—were translocated successfully and without mortality. It is a very interesting development.

Mr. SAXTON. Thank you very much. Dorene Bolze.

STATEMENT OF DORENE BOLZE, SENIOR POLICY ANALYST DIRECTOR, WILDLIFE CONSERVATION SOCIETY

Ms. BOLZE. Thank you, Mr. Chairman. I would like to thank the members of the Subcommittee for the opportunity to testify today and participate in this oversight hearing. I am Dorene Bolze, Senior Policy Analyst, and Director for Conservation Policy at the Wildlife Conservation Society.

Today I would like to do three things. I would like to convey our strong support for these Acts and the funds that they have created, comment briefly on some priority activities that these funds need to support, and, thirdly, discuss the need for legislative change to address an oversight in existing law regarding products such as Asian medicinals that are being sold in this country labeled as containing tiger and rhino and other endangered species as ingredients.

The Wildlife Conservation Society was founded in 1895 as the New York Zoological Society, and we are currently conducting about 250 field projects in 52 countries throughout Latin America, Africa, and Asia. For the sake of time, I will forego descriptions in a lot of our work on elephants, rhinos, and the tiger. That has been provided in my written testimony.

First point then, to convey our strong support on these funds. They have been very valuable, and they deserve increased financial support. We strongly supported the establishment of these two funds. Quite frankly, these funds offer resources that simply would not exist otherwise for specific efforts to conserve these species.

However, the need is greater than even the combined value of $15 million a year annually. Therefore, it is crucial that these funds leverage other support and moneys, and that is what they have been doing.

WCS has been a recipient of these funds under the African Elephant Conservation Act, and we have been very pleased with the minimal bureaucracy and the quick nature for turn-around and flow of funds. We are quite confident that the Fish and Wildlife Service can continue to manage these funds if they were to ever receive their full appropriations.

We are also quite pleased to hear of the recent increases in the appropriations in next fiscal year's budget for these funds. This is especially good to see in light of last year's severe threats to zero out these funds.

But these allocations are still just a portion of what could be appropriated, and of the seven species these two funds support, we can make a strong case that the Sumatran and black rhinos are the most endangered. Yet the rhino and tiger fund allocation has to be shared potentially amongst five species of rhino and the tiger.

We really would like to urge the committee to try and see if we can't increase the appropriation to at least $2 million. This would be one-fifth of a possible $10 million, and that would be the same proportion of the appropriation the African Elephant Fund is proposed to receive.

Second point on recommendations of priority projects for these funds, WCS has focused a lot of our attention on the African forest elephant in the past decade or so, and with regard to the African Elephant Fund, we have one or two comments on this.

Three of our projects have received support from the fund, and, again, I don't really have the time to go into the detail that is in my written testimony. We conducted the first and only large-scale survey of the African forest elephant in the late 80's, and it was this work that helped inform the ivory trade debates in Lausanne and basically pointed out assumptions that forest elephants were secure was just invalid.

It is really important at this point to follow up on this baseline information. If we don't have a new regional survey, without this type of follow-up monitoring, there is no way to assess how resources that have been invested by this fund and others into protected areas, new logging management regimes, controlled hunting such as trophy hunting, and other conservation efforts are affecting elephants.

Regarding the rhino and tiger fund, in my prior testimony in May 1994 in support of the Rhino and Tiger Act, I provided a lot of information regarding the urgent needs for the tiger and rhinoceroses. So I won't go into that now.

I would like to make one point regarding tigers because it is new and in reference to the prior testimony. WCS has responded to the plight of the tiger by launching our Global Tiger Campaign. We have been concerned that there is no coordinated effort to fully address all the conservation needs of the tiger.

One of our initial efforts was to assess past conservation efforts, current threats, and develop a conservation strategy. I have provided to the committee a copy of our policy report that came out the beginning of this year and also to the Fish and Wildlife Service because there is a lot of very specific information in there that can help advise on what type of priority projects to fund from the Rhino and Tiger Conservation Fund.

One of the main elements that we pointed out is the need to focus on securing high priority areas. We worked together with our partner, World Wildlife Fund-U.S., and we just completed a preliminary assessment on a new approach to identifying the most important tiger areas. I have provided for the record a copy of the executive summary of this document. This was funded by the Save

the Tiger Fund that Exxon put together, and I think it would be very valuable to the Fish and Wildlife Service.

With the little time I have left, I think I will skip over rhinos and move to my third point, which has to do with a legal oversight in the Endangered Species Act regarding Asian medicinals. As you know, we have to complement our efforts by protecting these species in the wild by trying to control the illegal trade and reduce demand.

We have commended the U.S. Government and President Clinton for focusing on the role of Asian consumer nations, and now it is time for the U.S. to focus on its own role as a consumer nation. Undercover investigations and informal visits to pharmacies have found rhino and tiger products widely and openly for sale right here in San Francisco, Los Angeles, New York, and even in Washington, DC's Chinatowns.

Unfortunately, recent enforcement efforts by the Fish and Wildlife Service have been hampered because a lot of these medicines do not appear to contain the animal ingredients as labeled. These are some examples of products we just purchased recently in New York that are labeled in English and in Chinese as saying they contain tiger.

They can be confiscated on import with the presumption that they do contain those ingredients. However, when the Fish and Wildlife Service's forensics lab has tried to prove through forensic tests they do contain even bone, they have not been able to prove that. These products do violate, therefore, product labeling laws, but they do not violate the Endangered Species Act.

This problem of counterfeit products or the inability or the difficulty in being able to prove the veracity of these products claiming to contain endangered species was not really foreseen when we passed the ESA many years ago. We strongly recommend this committee support some simple language to change this.

And believe it or not, Senator Jeffords's office has drafted a short bill, which they hope to introduce this week or next week, that will add the necessary language to the ESA so that the prohibitions apply to products labeled as containing endangered species, as well as Appendix I listed- species on CITES.

I would like to urge the committee to introduce a companion bill in the House and see if we can't move it through this Congress. This simple legislative effort would be a valuable complement to a well-funded Rhino and Tiger Conservation Fund. Thank you.

[Statement with an attachment of Ms. Bolze may be found at end of hearing. The report from WCS was placed in Subcommittee files.]

Mr. SAXTON. Thank you very much. Mr. Fitzjohn.

STATEMENT OF TONY FITZJOHN, FIELD DIRECTOR, MKOMAZI GAME RESERVE, TANZANIA

Mr. FITZJOHN. Thank you, Mr. Chairman. I have spent the past 29 years in the field in East Africa. Presently, I am the Field Director of the George Adamson Wildlife Preservation Trust, and I am also Wildlife Advisor to the Ministry of Tourism, Natural Resources and Development on the Environment of the Tanzania Government. I have just flown in from Tanzania on short notice, and I

have only had time to make a few basic notes so I do refer you to my formal submission.

I am here basically to talk about the successes of the past few years in saving the elephant in East Africa and what is happening now. We do understand that there is pressure to resume the trade in ivory, and we feel that this would be a disaster, not just in Eastern Africa, but over the continent as a whole. And I would like to address you today on this issue.

My main submission is fivefold. The CITES ban initiated by the United States is succeeding. Without the ban, the African elephant would have become effectively extinct by now. The lifting of the ban or downgrading would cause an immediate and irreversible crash in population and an inevitable relisting as endangered.

The present escalation in poaching, which is going on in Eastern Africa at the moment, is a market response to a perceived softening of the ban and also international opinion. The economic case for retaining the ban is compelling, and we feel that the future survival of the elephant and trade in ivory is best secured by an international trusteeship linked to debt conversion.

Two years from the ban is far too soon to make even tentative conclusions on trading in ivory. The calves being born now must have a chance to reach breeding maturity before any judgments are made. Enforcement of all or any regulations imposed on trading and export are rudimentary. The more complex and sophisticated the regulations become, the more hopeless and unworkable become their implementation.

Saying that ivory is a sustainable resource presumes that the trade is controllable. But any quotas or controls are virtually impossible to maintain, as has been proved in the past. The point is that the ivory is worth more money on the elephant. How many more tourists will see the same elephant when his tusks will just be exported to be carved up? Selling ivory is just a quick fix that cannot be repeated.

Ecotourism in the infrastructure and protection that goes with it is sustainable development, which provides regular and long-term employment for local people. There is a near unanimous view that the ban has been a success. The contrast from the preban days in 1989 is enormous, certainly in East Africa. We thought that it was all over, and the wildlife was finished.

The result of the ban was a vast increase in morale, not just amongst the field staff protecting the elephants, but within the society as a whole, reflecting the psychology of success. And with pressure on international borders, the protection of the elephants and their habitats automatically gives added security to human populations surrounding the wildlife areas.

We in East Africa are extremely grateful to America for their help to date in protecting these elephants. But also the funding to nongovernmental organizations has and will increase with the perception of success, and the pressure is off government to fund moneys banked from the treasury.

However, if we let this situation deteriorate again, it is a fallacy to think that more money will become available the worse it becomes, and the private NGO's will come to the rescue and take over a last-stand rescue operation.

The ivory trade, legal or illegal, is a market like any other and reacts swiftly to economic change, real or perceived. The present increase in poaching and stockpiling anticipates the possible relaxation in the ban and has been coincidental with many anecdotal reports from the field to that effect.

As we speak here at the moment, poaching is rampant in Zaire with Sudanese gangs crossing the border daily and cutting down elephants in their hundreds with automatic weapons. Uganda is being hit badly, and Southern Tanzania is seeing a slow return to the preban poaching days.

Even Kenya, with better law enforcement and infrastructure, is seeing a severe rise in poaching after six years of dedicated service by Wildlife personnel, many of whom have given their lives. Relaxation of the ban sends precisely the wrong message to all the markets and will vastly increase the demand for illegal ivory.

The economic prosperity of East African states is strongly linked to tourism, and wildlife forms the central core as reflected in all the statistics. Poaching and associated lawlessness is fatal to tourism. Countries with poor infrastructure do not stand a chance if the ban is relaxed.

Economic success reduces dependency and pressure on Western aid budgets. We feel that assistance to Third World range states may be achieve by debt relief linked to environmental protection. This has been done before in Debt for Nature.

It is physically impossible to protect the elephants in some of the huge tracts of land they survive in, such as Tsavo in Kenya or the Selous in Tanzania. And overall population figures—if I could just have a second—and overall population figures that we are given for elephants could be halved if note was taken of viable areas in which they might remain, even in the very near future. And it is clear that any resumption of trade or downgrading would be a disaster of epic proportions.

We feel that the future lies in an international trustee system to regulate storage and eventual trade, and as part of this development, there must be an international consensus that the ban on the ivory trade will last a considerable period of time, certainly 20 years at a minimum. In this way, anticipatory stockpiling of ivory will be terminated.

The United States is the world leader in environmental matters, and they must also lead the way for others to follow, as they have done in the past. If they do not, then the elephant is doomed, Africa is diminished, and the future generations will blame us for their grief.

[Statement of Mr. Fitzjohn may be found at end of hearing.]

Mr. SAXTON. Well, thank you all very much. Before I ask several questions, let me just say that at some point in the next little while the buzzers are going to ring, and we have a series of votes on the House Floor probably numbering five or six, which probably means that we have whatever period of time remains between now and the bells to do whatever final business we have.

So if you would keep that in mind as you respond to these questions, and let me just ask generally, it has been some eight years since the elephant bill was passed and it has been in effect.

Would you comment for the record on how you see it as having been successful, how perhaps it could be changed to affect the Act to make it more suitable, and whether it has assisted African nations in establishing effective conservation plans? Ms. Hemley, would you begin, and then we will just move across the table? And, again, if you would be as concise as possible.

Ms. HEMLEY. Sure. Thank you, Mr. Chairman. Well, I think as my remarks reflected, we at World Wildlife believe the Act has been essential for the recovery of populations of elephants that were devastated by the poaching for the illegal ivory trade, particularly in East and Central Africa.

If anything, I believe the bottom line is more money and capacity in the Fish and Wildlife Service to administer more grants. I think one of the advantages of this fund has been that most of the grants administered are relatively small, and so money can be moved quickly and with minimal bureaucracy. And that is proven, based on comments from our own partners in the field, to be very much effective and important.

Perhaps the U.S. could do more to try to get other countries to join in. Certainly, some have but it has been sporadic. We have been there and stuck with the programs, and through the CITES process and perhaps in other fora we could try to get other countries to join in and help augment our support, which has, I think, proven itself important.

Mr. SAXTON. Thank you very much. Mr. Murchison.

Mr. MURCHISON. Yes. I think of two things quickly. First, the high incidence of poaching in Southern Africa has been triggered mainly by incursions by commercial poachers across the Zambezi River from Zambia into Zimbabwe where the top habitat in the world for the black rhino has been virtually destroyed, and that is the Zambezi Valley. Having decimated the rhino, the poachers from Zambia have turned to the elephant.

It seems to me that, in grant administration, if the Service should determine that a country is not enforcing antipoaching measures diligently, such as in the case of Zambia, then they should take a hard look at continuing to supply funds to the noncooperating country.

To be a little bit clearer on that, it has been my observation that the Zambian authorities were not cooperative or sufficiently cooperative in the interdiction of AK–47-equipped poaching groups that decimated the black rhino and the elephant. Aid to Zambia should be conditioned upon being more cooperative. That would be one suggestion.

The second suggestion is that the Coetsee methodology of relocating elephants now should be given priority, it seems to me, in grant administration. We should encourage more relocation of elephants to habitats that will sustain them as an alternative to culling. Those are two things that come to mind immediately.

Mr. SAXTON. Thank you very much, sir. Ms. Bolze.

Ms. BOLZE. Thank you. Well, I would like to support the comments that Ginette Hemley made and basically just add two specific things regarding types of projects. As I think Ginette even mentioned in her testimony, there has been a movement away from some of the antipoaching means that were very important at the

beginning that were funded by the African Elephant Fund, and moving toward a lot of the other issues of long-term conservation management needs and dealing with human conflicts and so forth, which means not just establishing parks, but training park managers on how to monitor elephant populations and other wildlife and deal with the local human pressures and other resource needs.

One of our projects specifically funded by the African Elephant Fund was on training of the park and wildlife managers in Ghana on elephant tracking and biology and monitoring techniques and, again, the emphasis on science, which you had brought up before. You know, our organization—our mission is based on doing conservation from learning from science and scientific inquiry. And it is very important to do that.

It is sometimes very challenging because sometimes you don't want to have to maintain the patience for five or six years for the information to come through, and policy sometimes moves a lot more quickly than that. But there is no question that the value to a fund like this is that it can be targeted to African elephant conservation needs, and it should be on the important things of scientific information that we need, especially, for example, as I mentioned, the African forest zone.

There is a lot we don't know, and even some of the basic assumptions that elephants are major sculptors of the ecology and so forth, it turns out even with some of our new field research that some of those basic assumptions may need to be readdressed. And so those are the values to the fund.

The fund has been effective in that sense, that more money has gone into the field and helped with developing the expertise in country, and we also need to spread it around throughout Africa. And I believe that pretty much has been done based on the Fish and Wildlife Service's representation of the existing allocation of the moneys.

Mr. SAXTON. Before we go to Mr. Fitzjohn, let me just take this opportunity to throw in a plug for this favorite project of mine that has to do with what Ms. Bolze was just talking about, and that is the establishment of a United States sponsored but worldwide research facility. I would like to call it the National Institute for the Environment, where research grants would be part and parcel, where on an extramural and competitive basis, they would be dealt out for appropriate causes.

And, second, a communication mechanism would be set up where through computers or Internet, what have you, this information would be all catalogued and placed in a computer bank, if you will, where scientists and policymakers around the world could have access to this information as it is developed.

And I believe that that would greatly enhance our capable policymakers in accessing the right type of science as we move through some of these very important projects, as well as facilitate communication between researchers and scientists. It is one of my favorite projects. We have gotten more and more people in this town to talk favorably about it, and I believe, therefore, that we are making progress in that direction. I hope so anyway. Go ahead.

Ms. BOLZE. I just wanted to point out that one of the things we have learned because we work in a lot of remote areas like Zaire

where communications aren't that easy and e-mail and easy access to web sites just don't exist, so one of the basic challenges is still a lot of our own scientists have to come home, or they may be Zairian.

They have to leave and come to the U.S. or Europe in order to go through the libraries and go through the web systems to get this information. So even in China where we are working, you don't have access to a lot of these types of communication channels because of government control needs or so forth.

So that is just a word of caution because it is very exciting to talk about some of this stuff, and yet a lot of the policymakers are not going to be Americans and Westerners. They are going to be people who are in Congo and Ghana, and it is not that easy for some of them to get access to this stuff.

Mr. SAXTON. Thank you. Mr. Fitzjohn.

Mr. FITZJOHN. Thank you, Mr. Chairman. I would like to OK very much what Mr. Murchison and Ms. Hemley said and back that up. I don't think I can recall such an enormous success has taken place since this legislation came in and the fund came in in 1989. We in East Africa—we are going to lose everything, and there has been a massive changing of attitudes, even as we have seen in Southern Africa, culling giving way to translocation, and where slaughter just changed around into protection with pride by the people in the field.

But whatever changes are being made, and although funding is incredibly important to everybody, and also to lead the way for NGO's such as ourselves to be able to raise more money, everything depends on this ban being maintained. That is the bottom line.

Mr. SAXTON. Thank you very much. Now, let me just move to the Rhino and Tiger Conservation Act, which has been in place for a relatively short period of time, only since 1994. At that time, it was estimated that there were 6,000 tigers and about 11,000 rhinos living in the world. What do you think are the prospects of this Act being equally successful as the Elephant Act, and what kind of projections do we currently have as to estimates for the two species affected? Ms. Hemley.

Ms. HEMLEY. Well, as I mentioned in my testimony, there is some encouraging news from Africa. It seems that at least in some areas rhino numbers are stabilizing or increasing, and I would like to just reemphasize what I stated earlier in that we have an opportunity now with funds from the U.S. and augmented by funds from private sources to really secure populations that have been hit hard by poaching in the past—secure them well into the future. So the timing could not be more critical for getting the rhino and tiger fund up and running.

Unfortunately, we don't have quite as much encouraging news on the tiger front, although it is notoriously difficult to know how many tigers really are out there just by the nature of the species. I think one of the values of the tiger and rhino fund is that it has been broadened slightly from the elephant fund to allow for efforts to be undertaken in consuming countries as well, and that the new part of a lot of our strategies now—to really address the trade question—the illegal trade question on both ends of the trade proc-

ess, both on the exporting and importing end. With some of the recent important political changes in the Asian consuming countries, largely because of U.S. pressure, I think we can really start to get some good programs in place, working through political channels, as well as with technical support to some of those Asian countries to make sure that they keep the illegal trade under control. So those are some of the areas that we would certainly advocate going.

Mr. SAXTON. Thank you very much. Mr. Murchison.

Mr. MURCHISON. Mr. Chairman, thank you. I don't feel qualified to comment on the tiger legislation. However, in the case of the black rhino, it seems to me that we should stay the course contemplated by the statute, and provide help through the grant program to those particularly in Zimbabwe who are attempting to manage what is left of that population.

Mr. SAXTON. Thank you. Ms. Bolze.

Ms. BOLZE. I would like to make a brief comment. One thing that Ginette pointed out that is a very interesting development with the Rhino and Tiger Conservation Fund is the ability to focus on the role of consumer nations. That is important, and it is also an issue for African elephants as well.

One of the challenges too is that we have a tendency to get caught up in counting everything, and we don't have very good numbers for how many tigers there are out there. And it is a species that needs a lot of space so there aren't going to be millions of tigers running around anyway. And yet we have a tendency to feel like the number 5,000 is just so small that it doesn't matter anymore.

We need to be more ecologically intelligent about some of our ideas about what these numbers really mean. And one of the reasons why we have been trying to push for a focus on—focusing conservation efforts on key areas is so that there will be a more in-depth complement of effort so that it is not just the tiger population—actual numbers of tigers but their prey, and their habitat space, as well as the development issues that need to be resolved and managed in those areas.

So you have more of a complement of conservation efforts that will go in a particular place, and maybe that is a better way of measuring our success than there are 4,522 tigers now and there are 5,000 in two years. That is also, I think, one of the challenges with elephant numbers as well. We need to focus more on viable populations, healthy populations, and whether we actually know how many individuals are out there may not be as relevant.

Mr. SAXTON. Thank you very much. Mr. Fitzjohn.

Mr. FITZJOHN. Thank you, sir. It is really scary to think that we are down to such low figures, and now we have to do something about it. And as Ms. Bolze said, massive work needs to be done in the world consumer nations. And I don't think attitudes there are going to change very quickly.

As far as the rhino are concerned, there are 70 tons on Taiwan and 50 tons on mainland China. And the middlemen over there that own this rhino horn do want the rest of the rhinos in the world to be exterminated so the price of their stock goes up, and they will work pretty hard to make sure that happens.

The only thing that we can do in the field is round them up, stick them in heavily guarded and electrified sanctuaries, guard them day and night until one day we hope the world regains its sanity and allows them to live. But, you know, that is what we are doing in Mkomazi.

We are putting in Tanzania's first rhino sanctuary. We are having to buy black rhinos from South Africa. East African black rhinos from South Africa are $60,000 each and fly them up. And it is enormous—the work that has to be done and the cost that is involved.

But, you know, that is what my generation has to do. I don't want my children to turn around and say, "Well, you knew what was going on. Why didn't you do something?" you know, and that is the price we have to pay for what has gone on over the past—what I have seen over the past 20 years. And we are going to try and play catchup now.

Mr. SAXTON. Thank you very much. Let me just compliment the Wildlife Conservation Society for this great publication. Let me, just based on that, ask one final question relative to the tiger or any other species that you might want to refer to. Do you anticipate that any one of these species, specifically the tigers, are in danger of becoming extinct, or do you think we are somewhat far from having to make that assumption?

Ms. BOLZE. Well, I am relying on the expertise of a number of our field people and other management staff who have been asked the same question many times with some of the media, of course, who like to put things in doom and gloom scenarios.

Of the seven species we were discussing here, I think we can make the strongest case that the black rhino and the Sumatran rhino are the closest to it, the most endangered, the most critical. The black rhino we, of course, know pretty much how many there are and where they are, and we know there are very few of them. And there is still a lot of pressure for poaching.

The Sumatran rhino is a bit different. We really don't have any idea of where the viable populations are, and there isn't really much in the way of on-the-ground protection. And they are disappearing incredibly quickly, and the horn of Sumatran rhino is many, many times more valuable.

Speaking for Dr. Alan Rabinowitz on this, he would say that probably the Sumatran rhino would be the species of the seven that would be the most critical and possibly may not make it. But we need to get out there and figure out where to focus our energies.

With the tiger, we pretty much now have a better understanding of where to focus our energies in some of the key areas, and, of course, there are a lot of tigers in India that are in protected areas. And the government has shown a serious commitment. It does not represent the entire range of the tiger, but we know we would still have tigers 20 years from now.

Where we probably may not have any more tigers might be Indo-China, and so those are the sort of commitments we have to decide whether we are going to make. And for the tiger, of course, our organization very much wants to conserve a representative population of tigers throughout their range. So we don't really like

statements, "In five years, the tiger will go extinct." We don't think it is really true.

Mr. SAXTON. All right. Well, thank you very much. And unless any others have something that they would like to add on this last point, we thank you very much for being with us today. It has been very beneficial, and the hearing is adjourned.

[Whereupon, at 12:10 p.m., the Subcommittee was adjourned; and the following was submitted for the record:]

Summary of the address delivered by

His Excellency, Sir KETUMILE MASIRE

President, Republic of Botswana

to Face-to-Face Luncheon Forum
Carnegie Endowment for International Peace
Washington, D.C.
June 13, 1996

-reported by Stuart A. Marks, PhD
SCI Director of Research &
Community Development

The introduction of the President emphasized the importance of the **kgotla** (community assembly) as a national multi-party institution, that 2/3 of Botswana's population live in rural areas (agriculture 3% GDP, 80% of employment), diamonds and cattle as important basis of economy. Sir Ketumile's address concerned issues of the environment, the conservation and sustainable integration of a wide range of wild products upon which rural households in Botswana depended for their livelihoods.

Botswana's resources were under pressure from over-exploitation and unsustainable utilization because of land degredation, depleting groundwater reserves, and decreases in wildlife species and indigenous velt (grassland) resources. There was increasing concern about the ability of these resources to sustain themselves.

These concerns were also those of the Batswana, who passed the National Conservation Strategy in December, 1990 (Gov't White Paper # 1, 1990). This national policy paper governs natural resources, their conservation and development. Its primary objective is conservation and the sustainability of the country's natural resource base. Sustainable development has been an active policy since independence in 1966 and continues as an objective in natural resource planning.

Protection and conservation are the keystones of biodiversity. The following are evidence that this mission is being achieved and taken seriously:

continues as major objective in natural resource planning.

Protection and conservation are the keystones of biodiversity. The following are evidence of this mission:

- National Parks, Game Reserves, Forest Reserves, Wildlife Management Areas(WMA) constitute 37% of country's land area,
- Botswana has signed, ratified the international convention on biodiversity and convention on CITES,
- Botswana is signatory to convention against (?) drought and desertification.

A number of issues generate international interest in Botswana. These include land uses, the utilization of wildlife, elephants, disease control fences, and the Okavango delta. The major concern of environmentalists with regards wildlife and livestock is their focus on the perceived unchecked expansion of livestock on wildlife range with the corresponding decrease in wildlife. In response to these claims, Botswana had a system of rationalized land use planning with the expressed purpose of facilitating the coexistence of livestock and wildlife. Botswana has a conservation policy that has a good chance of succeeding as its people desire to benefit from wildlife on a controlled basis. The WMAs were created for this purpose.

The same declines in wildlife numbers within WMAs have also occurred in the Game Reserves (where there is no human pressure). The causes for these declines are not readily apparent. The long drought has resulted in substantial losses for wildlife. Yet Batswana people have acted responsibly and suspended their harvests of species to allow wildlife to recover.

Elephants have become a problem. Botswana currently estimates its herd at 79,000 elephants. Their cropping or utilization has been strongly resisted by westerners, who fear that this species will disappear. Elephants do terrible damage to the ecosystem and presently they are doing considerable damage.

The success of Botswana's wildlife management will depend upon the development of functional markets, where trade is influenced by both national and international forces. The US is the largest market for wildlife. Yet it is affected by CITES and by the ESA

act. These two conventions have a profound effect on the conservation programs and policies of the range states. The next CITES convention will be in Zimbabwe. His Excellency hopes for better appreciation and understanding of the precarious position of range countries in southern Africa. After all, CITES does provide for some limited, regulated trade in ivory. This trade would enhance the value of elephants and provide incentives for this vital wildlife resource. Currently, the future of all elephants outside protected areas is in grave danger.

Disease control fences. These were constructed in the 1950s before independence. Recently the government has received criticism for the effect of these fences on wildlife. Yet these same fences have an important role in preventing people from encroaching on wildlife habitat. Many foreigners have suggested that these fences be dismantled to increase the range of wildlife. His Excellency's answer was a definite NO. There could would be no return to the time when wildlife ranged freely everywhere. It was a fact that where there was more human presence, wildlife seemed safer in these fenced areas.

Fences were also effective in disease control. The recent outbreak of cattle lung disease compelled the government to destroy an entire herd of 240,000 cattle. It was a sad development in the history of the country. But if there had been no fences to divide the disease herd from those in the rest of the country, Botswana would have lost all its cattle.

The Okavango Delta is the jewel of the Kalahari and Botswana's repository of biodiversity. The delta is also the backbone of its ecotourism. The government was committed to ensuring the ecological integrity of the delta and making sure that it was not threatened.

Botswana has in place policies and laws for the preservation and sustainable use of natural resources. This includes its laws, policies on agriculture, wildlife conservation, habitat preservation, forest act, wildlife act, fish protection act, tourism and wildlife conservation policies and the agricultural development policy.

His Excellency wished to acknowledge the external assistance received in conservation and natural resource management from both government and non-governmental organizations. The US had played a significant role in the development of Botswana's natural resource management strategy. Batswana owe a

vote of thanks to the US people, particularly USAID in extending its help and provisioning technical and financial support. These organizations had played a critical role in demonstrating the viability of linking conservation and development objectives through wise use of natural resources. And Batswana continue to welcome such help.

QUESTIONS AND ANSWERS (some difficult to hear)

1. Statement by moderator: The key issue on environment for the international community was that Botswana would protect its natural resources at all costs. The international community should be mindful not to practice environmental imperialism.

2. Question from Deputy Chief of Mission (US State Dept?) Unfortunately, nobody here from US Fish & Wildlife Service. The issues are complex. What exactly would Botswana want the US gov't to do on ivory ban? What changes in ESA?

Answer: Remove elephant from Appendix 1 of CITES. Then Botswana can manage its resource without interference. Botswana had elephants, not because some international assembly had willed them on the country, but because the Batswana had always looked after their animals. Even tribal groupings, when they feel a species is endangered, impose prohibitions on hunting the animal until it can recover. Then they assume harvesting on a sustainable basis. The abundance of wildlife and this performance is a good indicator to those who have imperialistic plans.

3. What has been the relationship between cattle and wildlife?

Answer: Difficult to quantify. Gvoernment paid compensation for losses resulting from wildlife crashing into property. But gov't found that claims for damages always exceeded that voted by parliament. There was a danger of the whole budget going to compensation for crop damage. Now gov't is thinking of modifying the process for compensation paid was a considerable amount. In 1994 appropriated 445,000 (pula or $?) and it was exhausted in 3 months. Last year, 1 million (pula?) was gone in 6 months.

4. Developed countries, who have destroyed their wildlife by putting economic development above environmental protection in earlier times, now seem to be playing a double standard by harping on developing countries and requiring them to play by different rules

and protect their wildlife. What does the president think of these standards?

Answer: Very succinctly put. They treat us like innocent children and try and force us, by international standards, to comform. They do not acknowledge our human capacity to manage and learn from and about our own resources. It is better to offer gentle and kind advice rather than rigorous prohibitions.

5. How does Botswana deal with environmental activists?

Answer: Botswana has legislation as a guide for the nation to consider do's and don't's. Those who infringe upon these policies have to be sanctioned. We are a democratic society. I continue as head of my party (and as a MP) from the people whose crops, animals, children, and family get destroyed by animals. We will not continue in these roles if the people consider that we think more of elephants than we do of them (the voters). If we are reasonable, we can expect reasonable treatment from voters. If we take orders from outsiders, then our voters will get rid of us in government. Then those who wish to get rid of the elephants will get elected. They will kill off all our elephants- and only then will they find that they can't sell the ivory.

6. How has Botswana been able to absorb so much USAID and put it to good use?

Answer: I will need to blow my own trumpet. Botswana started upon humble beginnings. We had meagre resources. When diamonds were found, we were frugal and husbanded them. Aid will continue to flow, if we put them to good use. Money from elsewhere is given for certain purposes. We use them for those uses. We have been frugal and have used these resources for economic benefit not prestige. We have a balanced budget and reserves. Partly the result of good fortune and good friends.

7. Questions about Bushmen being forced out of their country and about "wildlife and indigenous people" being linked in ecotourism?

Answered by Ambassador to Washington: How of 89 species on ESA, majority were not found in USA. The effects of this prohibition profoundly affects other government's attempts to conserve and manage these species. The 79,000 elephants imposes a hardship on Botswana in that they damage crops. Elephants have exceeded the carrying capacity of the space given to

them. Every population must be controlled including that of humans. Government has 33 tons of ivory stored in Gaborones (worth US$12 million) that should be used for the purposes of wildlife management. Yet we cannot sell them under current conditions. The majority of these tusks came from biologists finding dead elephants in the bush and turning in. They were not shot. This stock of ivory has potential for doing something positive for wildlife.

END

Statement of Safari Club International
to the
Committee on Resources
United States House of Representatives

Oversight Hearings on
The African Elephant Conservation Act
and
The Rhinoceros and Tiger Conservation Act

Delivered by the Honorable Ron Marlenee
June 20, 1996

Statement of Safari Club International
Delivered by the Honorable Ron Marlenee

Mr. Chairman

No other American entity, with the possible exception of the Peace Corps, has had more individuals on the ground in the far reaches of Africa than SCI. Our interaction with African wildlife professionals, our interaction with the indigenous people, our interests in the expansion of wildlife habitat and our own wildlife professionals give us a unique opportunity to speak with authority about African species and their habitat.

Because of our profound conservation commitment we have been involved in saving the white rhino, we have assisted in the attempts to stabilize the African elephant populations and provide for their management, and we have taken steps to aid in the conservation of the black rhino.

Because of our commitment SCI helped develop both the African Elephant Conservation Act and the Rhinoceros and Tiger Conservation Act.

Our group can say without equivocation that these Acts and their full funding are desperately needed. The problems we see are not with either of these laws, but with the implementation of the Endangered Species Act by the U.S. Fish and Wildlife Service. The Service is ignoring the intent of Congress as expressed in both the elephant and the rhino and tiger laws, and is destroying the ability of wildlife professionals to fund African conservation programs. Given that problem, these two laws become even more important as at least token attempts to save wildlife and habitat in their home ranges.

The African Elephant Conservation Act is a positive force for the conservation of elephants, primarily because it fills a gap left by the Endangered Species Act (the ESA). It is not well known that although 82% of the mammals listed under the ESA are foreign species such as the African elephant, the ESA provides no direct benefits for the conservation of those species in the countries where they occur. The ESA simply prohibits or limits the importation of those species into the United States. There is no recovery planning for foreign species, there is no grant money for range nation conservation activities with foreign species, there is very little consultation with foreign governments on the conservation of those species,

much less cooperative programs, and of course there are no critical habitat designations. In contrast to the ESA, the African Elephant Conservation Act provides funding for projects that can be carried out in the range nations to conserve the elephant.

The African Elephant Conservation Act also recognizes that sport hunting of the elephant can provide important incentives and funding for elephant conservation in the range nations. For that reason, the Act specifically allows the importation of elephant hunting trophies into the United States. It also requires the specific consideration of the programs and activities of each range nation.

There are two serious problems that we see with the administration of the African Elephant Conservation Act. One is the failure of the Administration to seek more of the money that is authorized for projects and grants under the law. The Administration support has been weak, almost to the point of nonexistence. Since the Act's inception the Administration has never requested even one-quarter of the authorized amount.

The other problem is even more serious. The U.S. Fish and Wildlife Service has disregarded the express language in the Act that "[t]he Secretary shall not establish any moratorium .. which prohibits the importation into the United States of sport-hunted trophies from elephants ...". Instead, using the ESA as an excuse, the Service has imposed restrictions that have deprived range nations of tens of millions of dollars in foreign exchange and have simultaneously raised their costs unnecessarily. Let me explain further.

The principle remaining risk to elephants lies outside of parks and protected areas. Elephants beyond perimeter fences will disappear almost altogether if they are not given value by farmers and communities. Licensed activities like sport hunting are allowed to give the species value so that the farmers and the communities will put an effort into protecting the elephants which live on their land. The Congress recognized this all along and intended that sport hunting trophies be exempted from the import restrictions.

But the U.S. Fish and Wildlife Service had different ideas. They began imposing import restrictions in 1990, less than two years after the adoption of the AECA and shortly after the African elephant was placed on CITES Appendix I. The Service developed and used unpublished guidelines that, with the exception of

Zimbabwe, were a moratorium on all elephant trophy imports. The Service stubbornly continued to apply its guidelines and it took several years of litigation (including threatened sanctions by the Court against the Secretary), the written protests of nearly every elephant authority and major range state, and a broad attack on the guidelines during the 1994 CITES meeting before the Service formally withdrew them. Unfortunately, the Service simply shifted ground, and is now using the special rules on elephants under the ESA (50 CFR 17.40(e)) to accomplish the same result.

The record reflects that the Congress anticipated that the elephant would be placed on Appendix I of CITES. Representatives of the Service testified that the contemplated uplisting by CITES would not affect the import of sport hunting trophies. This was later confirmed by notice in the Federal Register which stated that the Appendix I listing would not affect sport hunting, but of course it has.

It is respectfully submitted that the Service should not be ignoring the express findings and policies set by Congress, much less trampling on range nations' programs. This is particularly true when the policy statement is so recent and on point. To quote, the AECA says that:

> It is the policy of the United States -
> (1) to assist in the conservation and protection of the African elephant by supporting the conservation programs of African countries and the CITES Secretariat; and
> (2) to provide financial resources for these programs.

The guidelines that were used by the Service, and their present refusal to issue import permits for elephant trophies for a number of countries that qualify under the AECA, violate the first policy provision. The denial of revenues from sport hunting that results when permits are not issued violates the second policy provision, because sport hunting is one of the more significant "financial resources" that is available to African countries for elephant conservation.

All the witnesses that testified in the House on the AECA favored the importation of sport hunting trophies with the exception of one person from an animal extremist organization. For example, Dr. Ian Douglas-Hamilton, one of the world's foremost elephant authorities, said that "hunters, too, should be allowed to carry their trophies home, as I recommended to your committee in 1979."

To put this in perspective, the Committee should consider that Tanzania, for example, has a CITES export quota of 50 animals a year. This is out of a population of 80,000 to 100,000 animals, the largest documented population of elephants in the world. An elephant hunting safari in Tanzania averages $60,000. Therefore 50 safaris generates $3 million U.S. dollars per season. Since only about one of every three hunters actually bags an elephant, the real figure is $9 million per year. It took more than two years of pressure to get the U.S. Fish and Wildlife Service to allow the importation of Tanzanian elephant trophies, thus costing Tanzania as much as $18 million in lost revenues. The residual effects of the Service's "ban" reduced the next season as well, costing Tanzania about half the revenue from that year.

Cameroon is another example. Like Tanzania, Cameroon appeared before the Congress when the AECA was under consideration and pleaded for their hunting program to be spared. As of today, the U.S. Fish and Wildlife Service still does not allow the importation of sport hunting trophies of elephant from Cameroon. That country, which has a CITES export quota of 80 elephants per year, has lost millions of dollars of potential revenue from elephant hunting.

Ethiopia is yet another tragic story. The U.S. Fish and Wildlife Service refused to issue permits for elephant trophy imports from that country, despite information that the revenue from elephant hunting supplied revenue that was equal to half of the Wildlife Department's annual budget. The elephant hunting was the only means to get government game scouts into the field, and the presence of outfitters was the only effective way to reduce poaching. The result of the U.S. refusal to issue permits was the termination of all safari hunting in Ethiopia for three years. Poachers moved into the abandoned safari areas and they became killing fields -- the stench of dead elephants hung in the air like the heavy forest dew. Some blame the U.S. Fish and Wildlife Service for the killing of those elephants just as surely as if they had pulled the triggers of the poachers' guns. Ethiopia, which was in the greatest need of the revenue from elephant hunting, was shut off without so much as a consultation, over the pleas from its authorities.

It seems clear to us that when the issue is African elephants the specific policies clearly expressed by Congress in the AECA should control as compared to the more general policies of the ESA. If nothing else, this is a generally accepted

tenet of statutory interpretation. This is further indicated by the fact that when the African Elephant Conservation Act was under consideration, it was as a title of a bill that amended the ESA. There was no question that the AECA was intended to express a Congressional policy about a particular species within the framework of the U.S. effort to conserve endangered and threatened species. But somehow, when it became a "stand-alone" law, those who administer the ESA seem to have forgotten that the Congress had spoken specifically to the issue of trophy import of elephants.

The provision of the AECA that deals with its relationship to the ESA says that "the authority of the Secretary under this Act is in addition to and shall not affect the authority of the Secretary under the [ESA]...". (16 USC 4241) If it is not clear enough that this "additional" authority under the AECA should not be controlling as to African elephants, then perhaps the Committee should consider specific language to make it clear that it is the intent of Congress to allow the importation of elephant hunting trophies under the conditions established in the AECA.

Now I would like to turn to the issue of rhinoceros for a few minutes. We have a success story to tell about from Africa, and another tale of woe and frustration about the U.S. Fish and Wildlife Service and its administration of the ESA.

The success story deals with the Southern white rhino. SCI testified on the issue of rhinoceros and the story of the southern white rhino several times before the predecessor to this Committee, in 1993 and again in 1994 when we supported the passage of H.R. 3987, which became the Rhinoceros and Tiger Conservation Act.

At the turn of the century, only 20 animals from this species existed, in Natal, South Africa. According to figures compiled at the IUCN African Rhino Specialist Group meeting in February of this year (attached), there are 7,095 estimated to exist in South Africa, with another 450 scattered in another seven countries in Africa. The population trend is up.

The wildlife conservationists who achieved this modern miracle credit the "economic and social" value of the rhino. They devised a plan which gave incentives to farmers and ranchers to allow the rhinos to breed and roam on private land. The land owners were allowed to bring in safari hunters to take up to eight animals a year. The nearly $2 million in revenues that this produced, along with other uses of the rhino (from game viewing to the sale of breeding animals),

was a major incentive in the recovery of this species on private land. Many more millions were raised for the government by the sale of breeding stock to the private farmers and ranchers from the surplus animals in the protected areas.

The CITES parties recognized the role of hunting and the recovery of the southern white rhino when, at the Fort Lauderdale meeting in 1994, they approved the downlisting of the South African population to Appendix II for trade in hunting trophies and live specimens.

But the other side of the coin is represented by the black rhino in Africa. Despite many valiant efforts, that species is still in extremely low numbers. We understand that there are fewer than 2,000 remaining.

A few years ago, SCI was asked to help with one imaginative idea in Zimbabwe. The government there was dehorning its rhinos in an attempt to make the animals less attractive to poachers. In order to offset the cost of the dehorning operation and to generate surplus revenue for rhino conservation, they asked SCI whether safari hunters would be willing to participate in the dehorning hunts. The hunter would track the rhino and pull the trigger on the darting gun. The anesthetized rhino would be dehorned by a government team, and would run off alive and unharmed from its experience. The horn would be given to the hunter as a memento of his experience, for which he would have paid a trophy fee (in addition to the other costs of his safari). The trophy fee would cover the costs of the dehorning operation and provide a surplus for conservation use.

SCI discussed this with its members and found quite a few hunters who were anxious to help restore the rhino populations. The problem was that the incentive of the rhino horn as a memento was negated by the inability to get import permits. SCI prepared and filed a test permit application in December, 1992. As expected, there were many objections from what we refer to as the "protectionist" community. The Department of the Interior delayed and delayed, and in the meantime the dehorning program collapsed. The permit was finally issued on October 19, 1995 (three years later!). Copies of the application and the permit are attached. But that was far too late to do any good for black rhinos.

As with the African Elephant Conservation Act, we see no problems with the Rhinoceros and Tiger Conservation Act. But again, the failure of the Administration to request funding, and the rigidity of the Department of the

Interior regarding concepts of sustainable use continue to defeat the goals and the policies of the Congress. In regard to funding, SCI, along with other organizations, interceded in February of 1995 when there was a move to cut off the funding for the Act. We were disappointed with the Department of the Interior's request for only $400,000, but we supported it against zero funding. In a letter to the Chairmen of the House and Senate Appropriations Committees, we said that we supported the Department's request, "particularly if it is used to assist range nation programs, since range nations are on the front line of battle to save the black rhino." We pointed out, as with the elephant, that the ESA does not provide any direct assistance for species like rhinoceros that occur in other countries. I should mention that although the Act allows a $10 million annual appropriation, the Administration only requested $600,000 for fiscal year 1997.

Table 1: NUMBERS OF WHITE [redacted] RHINOS IN AFRICA, BY COUNTRY AND SUBSPECIES, 1995 (Compiled at the February 1996 IUCN AfRSG meeting)

COUNTRY	WHITE RHINO		TOTAL	TREND
	C.s. cottoni	*C.s. cottoni*		
BOTSWANA	20*		20*	Stable
CAMEROON				
ETHIOPIA				
IVORY COAST	4		4	Up
KENYA	122		122	Up
MALAWI				
NAMIBIA	107		107	Up
SOUTH AFRICA	7 095		7 095	Up
SWAZILAND	41		41	Up
TANZANIA				
ZAIRE		31	31	Up
ZAMBIA	5		5	Stable
ZIMBABWE	138		138	Stable
SUDAN			?	?
ANGOLA			Extinct	
MOZAMBIQUE			Extinct	
TOTALS	7 532	31	7 563	Up

* Total excludes speculative guestimates, and so true population size may possibly be higher. Speculative guestimates include animals listed as guestimates at the May 1994 AfRSG meeting, and for which there is no new information. Speculative guestimates also include animals for which there is some circumstantial evidence that they exist (or have not been killed) but this evidence may be old or unreliable. Thus, the totals in the table do not include estimates for rhino that are believed to be or may be present, but where there is very little or no recent information on their status.

STATEMENT OF MATTHEW MATEMBA
COORDINATOR, SADC WILDLIFE TECHNICAL COORDINATION UNIT
DIRECTOR, NATIONAL PARKS AND WILDLIFE MANAGEMENT, MALAWI

BEFORE THE SUBCOMMITTEE ON FISHERIES, WILDLIFE AND OCEANS
HOUSE COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

JUNE 20, 1996

Mr. Chairman, on behalf of the Government of Malawi and its Department of National Parks and Wildlife, I thank you for this opportunity to testify regarding the effectiveness of the African Elephant Conservation Act of 1988 and the Rhinoceros and Tiger Conservation Act of 1994. My name is Matthew Matemba and I am Director of the Department of National Parks and Wildlife in Malawi and Coordinator of the SADC Wildlife Technical Coordination Unit. My Department is responsible for coordinating all issues relating to wildlife management within the 12 SADC countries, stretching from South Africa to Tanzania.

Mr. Chairman, there is no doubt that organized and well-funded conservation efforts are necessary in Africa. However, as we have learned over the past twenty years, some methods have proven to be more effective than others. It is our position that the African Elephant Conservation Act of 1988 and the Rhinoceros and Tiger Conservation Act of 1994 present opportunities for achieving and maintaining sustainable wildlife conservation in Africa. The potential of these Acts lies in their commitment to wildlife conservation programmes managed in and by African countries. These Acts emphasize the importance of well-managed wildlife conservation programmes operating where the wildlife is located. In our experience, programmes that assist local communities and governments in managing wildlife resources in their appropriate social, cultural and economic context have the greatest chance of success. While the process under which the Acts approve grants could be more sensitive to these factors, the Acts are steps in the right direction. An example of how successful these funds have been in meeting their objectives can be found in my own country. Last

year, my Department received a grant of $30,000 US which enabled us to provide emergency water supplies in drought stricken areas. These water supplies undoubtedly ensured that significant numbers of elephants and other species did not die of lack of water.

It is our sincere hope that funds granted under these two Acts will be effective in promoting wildlife conservation in Africa. In order to maximize the effectiveness of aid, these Acts must be sensitive to the needs of local communities which remain the front line of animal protection. It is our understanding that both Acts require the Secretary of Interior to evaluate the individual conservation programmes instituted by African nations. The Secretary is then authorized to provide funding, to the extent that his budget allows, to the most carefully structured and scientifically proven of these strategies. It is the intention of the Acts that only the most effective conservation programmes are funded. To make these decisions in the wisest possible way, we observe that wildlife conservation programmes should enfranchise local communities to work directly with the wildlife conservation managers and experts in the range states. The more programmes remain mired in old-style command-and-control approaches, such as trade bans and sanctions, the less effective the Acts will be in creating incentives for local communities to view wildlife as important assets necessitating the highest standards of protection.

In order to underscore the significance of committing scarce conservation resources to sustainable wildlife protection programmes that give local communities a stake in the outcome, let me describe for you a recent evolution in the thinking behind our conservation programme in Malawi. A landlocked country in southeast Africa, the nation of Malawi faces many challenges as it seeks to protect its environment and resources while at the same time expanding its base for economic development and growth. With a population over 11

million, only 26 percent of Malawi is arable land. As a result, conservation objectives must be balanced carefully with the needs of agriculture and industry if Malawi is to continue to provide for its citizens. In our experience, only by creating a sufficient economic stake in the preservation of wildlife can conservation programmes hope to be both sustainable and effective.

The approach we have adopted in Malawi is one of community-based conservation and development. By contrast to this approach, the traditional method of conserving wildlife has been described as stressing "fences and fines." Essentially, under the old model, a portion of the rural landscape was designated as the unique domain of wildlife -- to remain relatively untouched by humans. Departments of wildlife were expected to construct financial and physical barriers to limit interaction between people and animals. With only 0.7 acres of arable land per capita in Malawi, you can see that such an approach is unworkable in our nation as it often has been elsewhere in Africa. Wildlife fails to recognize artificial boundaries between parks and pasture, resulting in severe hardship for those living nearby. Unfortunately, with their income and even their lives at risk, local communities found it in their best interest to be hostile towards wildlife under this "fence-and-fines" model. Under this approach, the ironic result has been increased hunting of wildlife and loss of critical habitat.

Given the conflict between preservation and human needs, Malawi and other African nations have increasingly turned to new models of preservation that emphasize community-based conservation and development, or CBCD. These strategies link local participation with conservation and development goals to create programmes promising long-term sustainability. The authority to manage natural resources, including wildlife, is devolved from the central government to local people. CBCD enables people to

reclaim rights over wildlife and to benefit legally from both subsistence and commercial use of wild species.

The value of CBCD programmes to a sustainable ecological future has won global recognition and is, in part, supported financially by assistance from the U.S. government. American support for these programmes should come as no surprise, particularly given the emerging consensus in support of sustainable development from across the political spectrum. The former U.S. Secretary of State James Baker observed that:

> "Sustainable development, to put it simply, is a way to fulfill the requirements of the present without compromising the future. When policies of sustainable development are followed, our economic and our environmental objectives are both achieved. In fact, America's entire approach to bilateral and multilateral assistance is based on the concept of sustainable development."[1]

The way to make sustainability a reality to give individuals the incentive and the ability to participate within the programme. As U.S. Vice President Al Gore remarked in his treatise on environmental policy, Earth in the Balance, "One of the most effective ways to encourage market forces to work in environmentally benign ways is to give concerned citizens a better way to take the environment into account when they purchase goods or make other economic decisions."[2] For Malawi and many other range states, this "better way" is CBCD. And it is clearly is in the best interests of wildlife conservation for the two Acts we discuss today to support programmes that give local communities sufficient incentive to protect resources.

Mr. Chairman, I must correct a misimpression that trade restrictions, such as the ban on trade in ivory, are instruments that assist in advancing the cause of sustainable development. Trade restrictions without sufficient flexibility to encourage sustainable conservation programmes have a perverse ecological effect. Success of CBCD programmes like those in Malawi and elsewhere in the range states relies upon the

availability of markets for wildlife products. These markets depend on policy and regulation both at the international level and within consumer nations such as the United States. When markets are available, wildlife has a comparative advantage to cattle on semi-arid rangelands. Indigenous species make wider and better use of available vegetation. With market incentives firmly in place, CBCD programmes also create the basis for increasing the land available to wildlife. Our experience in southern Africa has demonstrated that parks that were once ecologically isolated are becoming cores of natural systems. Many times, the newly created buffer zones reopen channels of genetic transfer from one conservation area to another -- in ways in which the old fence-and-fines approach prevents. Without legal markets for wildlife products, the land owner or occupier is unlikely to tolerate or to encourage wildlife on his or her land as it is simply a dangerous liability. Other more profitable -- and less sustainable -- options for land use will be sought.

The market incentive for protection of elephant populations can be expanded in several ways. First, transferring the elephant population of certain countries where there is proven capacity for effective wildlife management to Appendix II of the Convention on International Trade in Endangered Species, or CITES, to allow controlled trade in products is in the best interest of elephant conservation, as the above analysis indicates. It is now feasible to institute sufficient trade controls and monitoring procedures to conduct a limited trade in elephant products without threatening elephants in other countries or stimulating illegal trade. CITES was first established in the early 1970's with the leadership of the United States. Over the years, the CITES process has brought together world-renowned experts in wildlife conservation. While CITES (which includes the U.S. government as well as the range states) is in the best position to evaluate the effectiveness of sustainable wildlife programmes, a marked improvement in CITES would be the transfer of the selected elephant populations to Appendix II. In addition to stimulating elephant conservation, such

a transfer would assist rural communities and support enhanced biodiversity conservation. Nine African nations originally opposed Appendix I listing of the elephant population and believe that the previous decision ironically punished the range states for the very conservation successes of their programmes. When the next CITES conference commences in June 1997, we anticipate the status of the elephant populations in certain countries to be at issue.

Second, the United States could clarify the foreign species provisions of its Endangered Species Act, removing effective bans on wildlife imports. It should be clearly understood that my comments today are restricted only to the foreign provisions of ESA. Despite our experience to the contrary, the underlying implication of ESA seems to be that trade in endangered and threatened species has a negative conservation impact. Malawi, along with Botswana, Namibia, and Zimbabwe, have sought to have U.S. officials administering ESA consult in meaningful ways before proceeding under the foreign species provisions of the Act. Also, we have asked that ESA should be aligned with international commitments made under CITES. Our governments believe that if these changes were made to ESA, the Act would be able to achieve its stated objective -- the conservation of species and habitat. By working with the range states more closely, the U.S. would be supporting conservation initiatives of the local experts, and not unintentionally undermining them as is often the case today.

Some have argued that the existence of trade restrictions such as the ivory ban have been responsible for a decline in poaching and the stabilization of the elephant population. From our experience, stabilization of elephant herd and poaching declines have occurred in nations with sustainable conservation programmes. By contrast, population declines and poaching (after a brief decline) have continued or worsened in nations

without such programmes. If continued Appendix I listing of elephants or misapplication of ESA undermines the market underpinnings of sustainable conservation, the very stability that some observers point to will evaporate. In order to expand on past success, we must make changes in policy that enhance sustainable programmes.

In order to illustrate how successful the sustainable conservation approach to wildlife management can be, I would like to provide information from a programme in another country than my own, the CAMPFIRE programme in Zimbabwe. CAMPFIRE has in many respects served as a model for other countries in southern Africa. CAMPFIRE has played a major role, not only in promoting ecological conservation in Zimbabwe, but also in fostering economic development and local governance. When viewed in the context of elephant conservation, the results of CAMPFIRE have been impressive. While it is well-known that the number of elephants has declined in some African nations following more "traditional" conservation measures -- for example, Kenya, where the elephant population plummeted from 35,000 to 26,000 in the 1980's. Zimbabwe's elephant population during the same time period increased under CAMPFIRE, soaring from approximately 40,000 to 70,000. Likewise Botswana, which has a similar approach to wildlife management, has an elephant population of 80,000, also a substantial increase in the elephant population. Namibia has sustained a significant increase as well. As the elephant herd is sustained, local communities prosper. In 1994, the programme generated over US$2 million for the country's economic and ecologic development -- an enormous amount for a country where the average annual wages often fall below $150 per year. Over the years, these funds have provided food in years of crop failure; supported development initiatives and income generating projects such as schools, clinics, small shops, and grinding mills; and

promoted additional conservation efforts, such as the employment of local game guards and the installation of wildlife water sources.

Programmes like CAMPFIRE work, Mr. Chairman, because they ensure that the goals of wildlife conservation and human development are mutually reinforcing, rather than mutually exclusive. In addition, because these programmes allow local people to enjoy the benefits of wildlife management, long-term conservation has become a real possibility. Today, more than 360,000 Zimbabweans are directly involved in the practice of wildlife management. As a result, over one-third of the land in Zimbabwe is dedicated to wildlife conservation. Not surprisingly, 50% of this land is found in commercial and communal areas, while national parks account for less than 30%. This is just one example of U.S. grant money working efficiently and effectively to enhance wildlife resources.

Other African nations are beginning to introduce similar programmes. For example, Botswana, Namibia, Zambia and my own nation of Malawi have adopted similarly-based programmes. In addition, Tanzania, South Africa and Mozambique are exploring options for developing programmes, while Kenya, Cameroon and Uganda are instituting pilot projects. Rather than viewing dangerous wild animals as a threat to their livelihoods, Africans are beginning to view them as valuable resources. Rather than herding them off their land or actually killing wildlife, people are becoming more likely to protect what they consider to be "their" resources.

It is our position that the funding provisions under the African Elephant Conservation and Rhinoceros and Tiger Conservation Act represent a tremendous opportunity for the U.S. Government to maximize the returns

from its aid by making a significant impact upon both sustainable biodiversity conservation and the relief of human poverty. However, at present, the enormous potential of these Acts to promote Africa's ecological and economic development remains largely untapped. Unless the federal acts are adequately funded, the U.S. effort will be a token one, at best.

CAMPFIRE, for example, began as an idea with no resources, little political and financial support and many sceptics. However, as the programme began to evolve, it increasingly attracted the attention of government and international aid agencies. The financial support provided by the U.S. government during the pilot stage of the programme played a crucial role in the success of the CAMPFIRE programme. The need for such foreign assistance will continue for a number of years as the programme grows and seeks to develop the institutional and economic basis for community based management around the country. New programmes in other areas of the continent, such as those mentioned above, will require similar support to achieve long-term conservation goals. I know this Subcommittee will not underestimate the complexity of transforming key elements of a rural economy's established production system. It requires a substantial investment in institutions, capacities and infrastructure, the costs of which cannot be born by the communities alone. However, the returns, in the form of significant improvements in the continent's the economic, ecological and democratic development, are enormous.

I would urge that the flexible funding provided by these Acts should be focused upon supporting and encouraging conservation approaches that local communities are fully involved in management or wildlife Finally, there is no doubt, Mr. Chairman, that in addition to adequate funding, the sustainability of African conservation programmes will depend upon the tolerance of national and international trade regimes for

carefully controlled and sustainable trade in wildlife resources. Sustainable wildlife conservation is premised upon the economic return from wildlife, which in turn, requires functional markets for products derived from wildlife. In particular, the U.S., as the largest market for wildlife and wildlife products, will play a large role in this regard. In this light, we encourage further U.S. conservation efforts to proceed in accordance with the framework of CITES. We urge U.S. policy-makers to continue their broad support for the CITES approach, with its emphasis on international conservation expertise. We further urge that as the U.S. evaluates programmes for assistance under the Acts we discuss today and other statutes, the U.S. should recognize the value of sustainable programmes that give local communities a meaningful role to play in wildlife conservation.

Mr. Chairman, thank you and this Subcommittee for this opportunity to testify on the African Elephant Conservation Act of 1988 and the Rhinoceros and Tiger Conservation Act of 1994. And thank you to the U.S. government for its continued support of Africa's conservation programmes. We have come far in protecting African wildlife, but much remains to be accomplished. With your assistance and cooperation, I am certain we will achieve our mutual objectives. I would be happy to answer any questions you may have at this time.

Literature Citations

1. Honorable James A. Baker III, speech before the National Governors' Association, February 26, 1990.

2. Honorable Al Gore, Earth in the Balance: Ecology and the Human Spirit, 1992 at 341.

TESTIMONY OF MARSHALL P. JONES, ASSISTANT DIRECTOR FOR INTERNATIONAL AFFAIRS, UNITED STATES FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE SUBCOMMITTEE ON FISHERIES, WILDLIFE AND OCEANS, HOUSE RESOURCES COMMITTEE, REGARDING THE AFRICAN ELEPHANT CONSERVATION ACT AND THE RHINOCEROS AND TIGER CONSERVATION ACT AND THEIR IMPLEMENTATION.

June 20, 1996

Mr. Chairman, I very much appreciate the opportunity to be here today to discuss the U.S. Fish and Wildlife Service's implementation of the African Elephant Conservation Act and the Rhinoceros and Tiger Conservation Act. It is particularly timely that renewed emphasis is being given to these landmark legislative initiatives. These Acts are designed to support United States efforts in encouraging and assisting conservation of the world's wildlife heritage.

They recognize that the United States, as a Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and as a major consumer of natural resources, shares responsibility for supporting and implementing measures to provide for the conservation of species, both at home and abroad. The key element embodied in both initiatives is the provisions of financial resources to help support programs to assist the conservation of elephants, rhinos and tigers in the wild in their countries of origin. Both Acts reflect our country's commitment to assisting the people of developing African and Asian nations in implementing their priorities for wildlife conservation. In fact,

conservation of the African elephant, rhinos, and tigers remains an issue of enormous importance to the American people; the U.S. Fish and Wildlife Service has received more mail from individual Americans about these species over the past eight years than any other species of wildlife, foreign or domestic.

Most of my remarks today will focus on the successes of the African Elephant Conservation Act. Enacted in 1989, the Act was initially funded in fiscal year 1990 and the Service now has five years experience with African elephant conservation programs. Furthermore, the early success of this program provided impetus to the passage of the companion Rhinoceros and Tiger Conservation Act in 1994.

African Elephant Conservation Act

The African Elephant Conservation Act was enacted at a time when the continental population of African elephants was declining at an alarming rate, due primarily to the poaching of elephants for a large illegal trade in ivory. Population estimates vary widely for the African elephant from the 37 countries within the current range, but it is estimated that total elephant numbers declined by as much as 50 percent during the late 1970s and 1980s. In response to this precipitous decline, the Act contains a unique two-pronged conservation strategy. First, the Act requires a review of elephant conservation programs and establishes a process for import controls; second, it establishes a Fund for cooperative conservation projects

in African countries. In accordance with the provisions of the Act, in June 1989 the President established a moratorium on all ivory imports into the United States, which was then the third largest consumer of ivory in the world. The Congressional leadership that facilitated passage of the Act, and the resultant U.S. ivory import moratorium, were precursors to strong U.S. leadership. These activities led the world community to transfer the African elephant to Appendix 1 and to put in place the world ban on ivory trade.

While it was determined that several African countries, particularly in Southern Africa, were able to maintain adequate conservation programs internally, there was no effective mechanism to control international trade in illegal ivory. The debate continues today over the impacts of the Appendix I listing and the legitimate concerns of the impact of the trade ban adopted by CITES parties on wildlife utilization programs in some countries.

The information available today indicates significant declines in the rate of elephant poaching, ivory prices and ivory trade immediately following the ban, combined with a stabilization of elephant populations in many countries that were experiencing declines. It is important to note that there was also a concurrent increase in donor funding to help support anti-poaching efforts in range countries following the Appendix I listing. A recent report prepared for the Ninth meeting of the Conference of the Parties to CITES in 1994 suggests that poaching may be on

the rise again in some countries, which may be due in part to declines in donor funding and operational wildlife department and anti-poaching budgets in those countries. The issues of elephant conservation and ivory trade are complex and are expected to be a significant focus of the next meeting of the CITES Conference of the Parties, to be hosted by Zimbabwe in 1997.

As this important dialogue intensifies, it is even more important to focus on the positive strides made as a direct result of the Act's unique conservation strategy--a small conservation Fund targeted at cooperative, on-the-ground conservation projects in Africa. Implementation of this program has played a significant positive direct role in the conservation of the African elephant, and an indirect role in the conservation of numerous species that benefit from the conservation of this keystone species.

To date, the Service has funded under this program 48 different projects, in 17 African countries affecting over 200,000 elephants. Each project is a cooperative effort with African CITES Management Authorities, other foreign governments, nongovernmental organizations or the private sector. No in-country project is approved unless it has the full support of and has been identified by that country as a priority for conservation. Through this cooperative approach the actual on-the-ground resources directed at African elephant conservation is more than double the $5 million allocated to the program since 1990.

Under the Act all but 3 percent of funds allocated to the grant program are used to fund projects. Additionally, no overhead charges are supported by grant funds. All such costs are borne by the cooperators as matching contributions to the project. Thus, 97 percent of all funds allocated by Congress to the Fund are obligated to specific projects.

In implementing this program, the Service also has designed a streamlined process allowing for timely approval of projects, and having the capacity to respond quickly to emergency situations. Since no implementing regulations were deemed necessary, there was no time lag in initial receipt of funds and actual implementation of the program. As an example of the quick response capability of the program, in 1993 the Service received an emergency request from Namibia for assistance in responding to a disease outbreak in their rare desert elephant population. In cooperation with the Namibia Ministry of Environment and Tourism and World Wildlife Fund, a project was initiated within days to vaccinate the remaining population using helicopters and dart guns.

Initial Stage: Emergency Anti-Poaching Programs

Given the relatively modest level of funding and its annual limitations, this program is designed to provide quick, short term support for holding actions and other conservation measures, in concert with existing or proposed long range activities, or until such long range activities are in place. Therefore, in the first years of the

program the majority of funding requests and the highest priority projects for funding were proposals submitted by or in cooperation with African elephant range state government agencies for anti-poaching assistance. Funds have been provided to augment anti-poaching support in Cameroon, Congo, Eritrea, Gabon, Mali, Senegal, Tanzania, Zambia and Zimbabwe. Vitally needed equipment including field gear, vehicles and radios and operational support including field rations and fuel represent the most critical needs for these programs.

One of the earliest projects funded was a cooperative effort with the Ministry of Forestry and Wildlife, Central African Republic, and the World Wildlife Fund. A cooperative effort was underway to establish a reserve in the southeastern portion of that country. While funds for gazetting the reserve were anticipated, no funds were available for basic equipment and operations of anti-poaching patrols to be hired from local communities. A cooperative project was implemented under the Fund. When the first patrols were put into place the only signs of elephants in the local clearing were the carcasses of several poached animals. Today over 2,000 individual elephants, young and old, are using the clearing. From an observation platform, local school children can watch in awe as dozens of elephants gather.

A second anti-poaching project is in Senegal, where the western-most population of elephants in Africa is presently secure with help from the Fund. Through a cooperative project with the government of Senegal and the Friends of Animals,

an anti-poaching program implemented under the Fund has provided local community employment, and protection for the remaining elephant population. For the first time in years, baby elephants are now seen in this small but genetically valuable population.

One of the most innovative anti-poaching projects funded is a cooperative effort with the Southern African Wildlife Trust and several cooperating African government agencies in recognizing wildlife scouts and rangers for their individual achievements in the field for anti-poaching. Four countries -- Botswana, Tanzania, Zambia and Zimbabwe -- now present meritorious service awards to their outstanding game scouts and rangers. This program has provided a much needed morale boost for the front line forces that routinely put their lives on the line to protect elephant populations.

New Focus: Proactive Local Management Programs

More recently the focus has changed from anti-poaching projects to other conservation activities that address management needs and increasing human/elephant conflicts as expanding human populations reduce the amount of wild lands available. In Southern Africa a number of projects have been implemented to assist range state agencies with elephant management programs. A cooperative project with the Zimbabwe Department of National Parks and

Wildlife focused on the development of translocation techniques for elephant family units.

Over 1,000 individual elephants were successfully translocated to new range in Zimbabwe when drought threatened hundreds of individuals with starvation and destruction of available habitat. South Africa and other range states now use this technique. A second project in Zimbabwe, in cooperation with Safari Club International, focuses on the development of a manual on elephant population management as part of the CAMPFIRE program to assist local communities in sustainable development.

Other management projects include investigations into the effectiveness of various forms of deterrents used to discourage crop-raiding elephants in Cameroon and Zimbabwe; training wildlife officers in Ghana about elephant biology and ecology; and elephant population surveys in Cameroon, Chad, Central African Republic, Malawi, Namibia and Tanzania. The Service also has funded projects to assist in the establishment of a continent-wide database on elephant populations and the first comprehensive library of elephant resource material.

These are but a few examples of the significant successes of the African Elephant Conservation Act Fund program, demonstrating the wide array of projects and cooperators. Hopefully they serve to illustrate its effectiveness and positive

impacts on African elephant conservation. However, while much has been accomplished, much remains to be done. The annual requests for support of high priority projects greatly exceeds the funds available.

Rhinoceros and Tiger Conservation Act

In enacting the Rhinoceros and Tiger Conservation Act, the Congress responded to the fact that the world's rhinoceros and tiger populations were declining at an alarming rate, with all five subspecies of tiger currently threatened with extinction in the wild, and most rhino populations reduced to critical levels. The Sumatran rhino and the South China tiger, for example, are now among the most highly endangered large mammals on earth, unlikely to survive into the 21st century without substantial additional help. The cause of this precipitous decline continues to be poaching for the market in rhinoceros horn and tiger parts.

Although enacted in 1994, funds were not allocated to the Rhinoceros and Tiger Conservation Fund until this year, and only became available to the Service this April, following final resolution of the Department of Interior's Fiscal Year 1996 budget. Anticipating that initial funding eventually would become available, the Service developed an interim process for identifying highest priority projects and anticipates funding several critically needed projects before the end of this fiscal year.

The Service envisions funding on-the-ground conservation activities in Asia and Africa. These projects will be closely coordinated with current ongoing Service activities. Since the late 1970's the Service has cooperated in a series of programs in Russia and India for wildlife conservation. Funding for these programs has been principally through the use of U.S.-owned excess foreign currencies, and private sector cooperator matching funds. In India, specific assistance toward tiger conservation has included training workshops on capture, immobilization and radio-tracking, facilitating breeding loans of new founder animals for U.S. and Indian zoos, and intensive studies of tiger status and ecology.

Related activities have assisted with faculty and curriculum development at the Wildlife Institute of India, the principal wildlife training facility in India. In Russia, the Service has supported tiger conservation by providing assistance to a number of reserves which sustain critically endangered tiger populations.

The Service will also continue to coordinate its efforts closely with other conservation programs including those sponsored under the Save the Tiger Fund of the National Fish and Wildlife Foundation, which is funded primarily through grants from the Exxon Corporation. Currently I serve on the Board of that Fund, thus providing an opportunity to closely coordinate our efforts and to encourage the support of projects for the conservation of tigers in the wild.

The initial funding under the Rhinoceros and Tiger Conservation Act will support only a handful of small projects with projected funding needs far exceeding available resources. However, as with the African Elephant Conservation Act, we hope that it will serve as the catalyst for significant contributions to the conservation of these critically endangered species.

In closing Mr. Chairman, the findings made by this Congress in enacting this Act regrettably still ring true today, "Many (African countries) do not have sufficient resources to properly manage, conserve, and protect their elephant populations." The United States must share the responsibility to provide for the conservation of the African elephant, the rhinoceros and the tiger. The principles embodied in this Act and its companion Rhinoceros and Tiger Conservation Act are sound. They provide a critical incentive for governments of the world, nongovernmental organizations, and the private sector to work together for a common conservation goal. This is not a hand out, but a helping hand. The Service believes the Acts are well crafted, and accomplishing significant conservation priorities in Africa and Asia, and need no changes. The Service strongly supports these programs as enacted.

Once again, thank you, Mr. Chairman. I would be happy to answer any questions you or the Committee may have.

STATEMENT

of

GINETTE HEMLEY
DIRECTOR OF INTERNATIONAL WILDLIFE POLICY
WORLD WILDLIFE FUND

before the

SUBCOMMITTEE ON FISHERIES, WILDLIFE, AND OCEANS

of the

House Committee on Resources

on

Progress and Potential:
The African Elephant and Rhinoceros and Tiger Conservation Funds

June 20, 1996

World Wildlife Fund
1250 Twenty-Fourth St , NW Washington, DC 20037-1175 USA
Tel: (202) 293-4800 Telex 64505 PANDA FAX (202) 293-9211
Incorporating The Conservation Foundation Affiliated with World Wide Fund for Nature

Progress and Potential:
The African Elephant and Rhino and Tiger Conservation Funds

Testimony of Ginette Hemley
Director, International Wildlife Policy
World Wildlife Fund
Before the Subcommittee on Fisheries, Wildlife, and Oceans
June 20, 1996

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to appear here today. I am Ginette Hemley, Director of International Wildlife Policy at World Wildlife Fund. WWF is the largest private conservation organization working internationally to protect wildlife and wildlife habitats. We currently support conservation efforts in more than 70 countries, including many key African elephant range states and almost all range states for tigers and rhinos.

We are here to evaluate the effectiveness of the African Elephant Conservation Act (AECA) of 1988 and the Rhinoceros and Tiger Conservation Act of 1994. I would like today to review what these laws have accomplished to date, and their importance for future conservation initiatives.

First, I want to express WWF's appreciation for the concern and interest that this Subcommittee has shown for the conservation of these species, three of the world's most magnificent and visible symbols for global conservation. We want to thank you, Mr. Chairman, for convening this hearing, and we applaud the Subcommittee for taking a leadership role in securing passage of both the African Elephant Conservation Act and Rhino and Tiger Conservation Act. We also want to note in particular the important roles of Representatives Beilenson, Studds, and Fields, who are appearing today. You have our special thanks for helping lead the initial effort in Congress in 1988 on behalf of the African elephant, and more recently on behalf of rhinos and tigers.

The African Elephant Conservation Act

WWF first testified before the House regarding elephant conservation on June 22, 1988 -- eight years ago almost to the day. At that time, a dramatic decline in many elephant populations over the course of a decade had precipitated enormous concern among African nations and the global conservation community. From an estimated 1.2 million animals in 1979, elephant numbers dropped to about 600,000 by the late 1980s, a decline of as much as 50 percent in just ten years. Shrinking habitat and conflict with rapidly expanding human populations played a role in the decline, yet by the mid-1980s it was clear that the overwhelming factor in the steep drop in elephant populations was poaching for the illegal ivory trade.

During its peak just over a decade ago, as much as 800 tonnes of ivory were exported from Africa each year, equivalent to the deaths of up to 80,000 elephants annually. The losses were disproportionate, with some elephant populations in east and central Africa suffering devastating declines, while others fared better. In particular, elephants in several southern African countries were well insulated from the poaching assault, due to effective management and conservation programs.

CITES grappled unsuccessfully with the massive outflow of illegal ivory from the African continent, through an export quota system that ultimately failed to keep illicit ivory products out of global trade. The global response was the 1989 CITES ban on commercial ivory trade, a measure adopted by the vast majority of CITES member nations. Although controversial among some elephant range countries, the moratorium has proven important to the recovery of many of the elephant populations hit hardest by poaching. CITES will no doubt continue to debate the future of the ivory trade ban, as the African elephant clearly presents some of most challenging issues in wildlife conservation and management today, and the needs and priorities associated with addressing these issues vary widely among African countries.

The ivory trade ban was a stop gap measure targeted at a crisis situation. The issue we are discussing here, Mr. Chairman, which is in many ways more critical over the long term, is international funding for wildlife conservation programs. To this end, the African Elephant Conservation Act has played a crucial role. The Act established the African Elephant Conservation Fund and authorizes up to $5 million per year for elephant conservation projects. Although the fund has never been appropriated to the fully authorized amount, it has proven an important instrument for helping African nations in their efforts to rebuild elephant populations hit hardest by poaching, as well as for addressing the growing array of elephant conservation and management needs throughout the continent.

To best understand the importance of monies provided from the AECA, one would have to consult with the governments and wildlife officials and experts of the 17 countries which have benefited from its support. A few of them are represented here today. WWF has conservation programs or projects in 16 African countries and oversees several projects which have been the direct recipients of support from the African elephant fund. Based on our own field reports and contact with experts across Africa, the fund has been an important source of support for projects that would otherwise not have been possible.

The African Elephant Fund, administered by the U.S. Fish and Wildlife Service, has provided about $5 million over five years to elephant conservation activities in range states throughout Africa. Mr. Chairman, this is a very modest program -- $5 million has supported 62 grants to 48 projects in 17 countries. In our view, the Service has been both efficient and effective in managing the elephant grants program.

Through many years of developing and managing international conservation programs and projects, we at WWF have learned many important lessons. One is that successful conservation initiatives require commitment and continuity. The African Elephant Conservation Fund has in fact been the only continuous source of new funding for African elephant conservation efforts since the 1989 ivory trade ban went into effect. Unfortunately, funding from other sources has proven erratic. In the immediate aftermath of the ivory trade ban, when the world was sensitized to the elephant's dilemma, funding flowed from various unilateral and multilateral bodies and NGOs to projects in many parts of Africa. Since then, much of it has dried up. A 1995 review cosponsored by WWF and the U.S. Fish and Wildlife Service, with support from the elephant fund, revealed that many African wildlife and parks departments have undergone massive budget cuts, sometimes on the order of 90 percent or more in four years, as was the case with Tanzania from 1989-1993. This not only underscores a very serious trend, but also makes the monies authorized by the AECA even more valuable and needed.

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From WWF's perspective, some of the strengths of African Elephant Conservation grants program include:

- Emphasis on small grants. By emphasizing small grants, FWS is able to move monies relatively quickly with minimal bureaucracy, while also allowing for a wide spectrum of projects to be supported. The African elephant inhabits some 35 countries, and conservation needs and capacity vary widely. The Service has chosen to provide maximum reasonable flexibility by keeping grants small, while maintaining a broad focus to ensure that meritorious projects throughout sub-Saharan Africa are funded.

- On-the-ground focus. Virtually all monies coming from the fund go directly into the field where it is needed; just 3 percent goes for administration. Moreover, the Fish and Wildlife Service has been responsive to emerging needs, as witnessed in 1993 when an anthrax outbreak threatened Namibia's elephant population. Emergency assistance was provided from the African elephant fund, and helped head off a potential catastrophe.

- Balanced set of projects. In the beginning, the African elephant fund supported mostly anti-poaching projects, as these were the immediate priority. Since then, we are encouraged that, while grants are still targeted at clear and identifiable needs, the fund supports not only anti-poaching but many other activities, such as elephant population research and censuses, efforts to mitigate elephant/human conflicts, investigations of the ivory trade and cataloging ivory stockpiles, elephant translocations, and identifying new techniques for elephant management.

- Cooperation with range states. All FWS projects receive approval from the host country government before proceeding. We have found that there is a very clear process and commitment to consultation and, where possible, collaboration with African governments.

- Matching funds. Since the elephant grants program was initiated in 1990, more than $5 million in *matching* contributions has been spent on the various projects supported -- more than a 1:1 match. In addition, the fund has played a catalytic role in larger initiatives, such as in the Central African Republic's Dzanga Sangha Reserve. In a major effort to protect important wildlife habitat and biodiversity by working with surrounding communities to link conservation with development needs, African elephant funds are used to support three teams of game scouts that patrol the reserve and combat poaching. In partnership with WWF and others, the U.S. government has been able to play a focused role in the conservation of this biologically-important area that is important for forest elephants and many other unique species.

- U.S. Leadership. Last but not least, the AECA has allowed the U.S. to put its money where its mouth is, and to set an example for other countries to follow. The commitment of this Congress to ensuring a continuing source of support for these initiatives will be critical to the long-term viability of many elephant conservation initiatives.

The list of specific initiatives supported by the African Elephant Conservation Act is impressive, and I would encourage members to review it. These projects have provided critical seed money to new elephant conservation initiatives in Africa, provided supplemental funds for existing projects with needs that could not be met from other sources, and helped build conservation infrastructure within elephant range states. With projects receiving matching support organizations like WWF, Safari Club International, the Wildlife Conservation Society, and others, the African Elephant Conservation Fund has clearly multiplied its conservation benefits substantially. We urge Congress to continue its strong support for this important program.

The Rhino and Tiger Conservation Act

This Subcommittee is well aware of the crisis facing rhinos and tigers in the wild and the staggering declines these species have experienced. Ninety-five percent of the world's wild tigers have disappeared since the turn of the century, with losses to poaching accelerating over the past decade. Three tiger subspecies have become extinct in the past fifty years, with the remaining five subspecies now confined to scarce habitat fragments in their former range. Similarly, more than 95 percent of Africa's black rhinos have been lost, but in just two decades, down to fewer than 2,000 animals today. Asian rhinos have fared even worse -- recent reports indicate that the Sumatran rhino population, for example, has been cut in half in the past decade, with numbers now totaling fewer than 500 animals.

It is probably not necessary to provide more details on the seriousness of the situation. What is important is finding new resources for conservation and invigorating global efforts to protect remaining populations of these species. The most immediate threat to the survival of rhinos and tigers is poaching for the trade of their valuable body parts to East Asian medicinal markets. Stopping the illegal trade is fundamental to successful field conservation efforts, and is an issue that, fortunately, has received significant attention in the past three years, through both CITES and actions taken by the United States. Passage of the Rhino and Tiger Conservation Act was one indication of the seriousness with which both Congress and the Administration have addressed the issue.

Because the Rhino and Tiger Conservation Act is relatively new, its full potential to address the threats to these species has not yet been realized. The first appropriations for the Rhino and Tiger Conservation Fund just came through in the long-delayed FY1996 Interior spending bill. By following an approach similar to that used for the African Elephant Fund, the Rhino and Tiger Conservation Fund can prove equally effective. The Fish and Wildlife Service appears to be showing the same commitment to emphasizing small grants, looking for a balanced portfolio of projects and working with host government agencies and NGOs to identify priorities and allocate funds. We are encouraged by the positive responses WWF has received from partners in the field throughout Asia and Africa about the fund's creation. As our field colleagues report, it means a great deal in range states that the U.S. government again is demonstrating a global commitment by acting as a partner to help save these critically endangered species.

Protection of heavily-traded species such as tigers and rhinos must involve a multi-pronged approach focused on reinforcing conservation efforts around protected areas and strengthening trade controls at both the producing and consuming ends. The Rhino and Tiger Conservation Act recognizes this, allowing for funds to be used for activities that address on-the-ground habitat protection needs as well as trade threats outside of range countries. With recent breakthroughs in Asian consuming countries such as Taiwan, China, and South Korea, largely the result of pressure from CITES and Pelly Amendment sanctions imposed by the United States, we are for the first time seeing important new commitments to wildlife trade enforcement in key tiger and rhino consuming countries. Funds from the Rhino and Tiger Conservation Act can help build on this important progress.

In the field, we have learned the hard way that successful conservation measures for critically endangered species do not come cheap or easy. But we also have learned that strategic investments and long-term commitments pay off. Earlier this year, the World Conservation Union (IUCN) reported that, for the first time in perhaps two decades, rhino populations throughout Africa are either stable or increasing in most areas, suggesting that recent investments have begun to show results. An important example is the Kenya Black Rhino Conservation and Management Plan, a Kenya Wildlife Service initiative supported by WWF and other organizations which aims to build conservation infrastructure and develop rhino sanctuaries. Kenya is well on its way to achieving its goal of 600 black rhinos in the country by the year 2000. In this program, a policy of intensive protection and management of several key populations in relatively small areas has been successful in increasing rhino numbers, to the point that surplus rhinos are used to re-stock larger areas of protected rhino habitat. The only downside of this approach is its costs -- this is a multi-year, multi-million dollar program. In a similar initiative in Zimbabwe, the translocation of rhinos to "Intensive Protection Zones" (IPZs) within established protected areas has proven important to conserving remaining black rhino populations. But, as in Kenya, the costs are significant -- the Zimbabwe government has said that it takes as much as $600 per square kilometer to translocate, monitor, and maintain one animal, or about $8,000 per animal per year. The Zimbabwe government is seeking several million dollars to implement this plan. Clearly, significant new funding is needed to secure remaining rhinos over the long run.

The Rhino and Tiger Conservation Fund can provide important new support for conservation efforts by building on some of the important successes already achieved as well as providing emergency monies to help head off disasters. It is important to remember that some of these species have weathered major crises before. The white rhino, for example, was nearly extirpated in South Africa at the turn of the century, but now numbers over 7,000 in that country, due to the high priority given wildlife conservation by both the state and private sectors. In the 1930s, poaching reduced the Siberian tiger population to 40-50 individuals before strict protection helped its numbers rebound to some 500 in the wild in the 1970s. The fact that the population has been reduced to fewer than 200 today is troubling but does not necessarily mean doom, as long as action is taken quickly and support is sustained. In fact, poaching levels have been dramatically reduced from the disastrous winter of 1993, and we are cautiously optimistic that the situation in the Russian Far East will continue to improve.

Since the passage of the Rhino and Tiger Conservation Act, WWF has collaborated with the Wildlife Conservation Society to develop a framework for identifying high priority areas and actions for conserving tigers in the wild. The plan addresses immediate and long-term threats to tigers throughout their range, taking into account the full array of habitat types and integrity, poaching pressures, management needs, and trade control and policy issues. I would like to submit a copy of our report for the record. WWF believes that some of the priorities identified might prove useful to the Fish and Wildlife Service as they implement grants under the Rhino and Tiger Conservation Fund. Some of these include:

- Developing conservation infrastructure for areas identified as critical tiger habitat, based on ecoregion, habitat integrity, and poaching and trade pressures; many of these areas include key parks and reserves, but also habitat units outside of protected areas;

- Funding surveys of tiger habitat areas not yet ranked in importance, so that their significance for tiger conservation can be assessed;

- Supporting the recently established Global Tiger Forum as an important multilateral mechanism for transboundary initiatives that are necessary to conserve many key tiger habitat areas;

- Strengthening regional wildlife training institutions to support tiger conservation training needs on a systematic basis;

- Strengthening CITES trade controls in key tiger range states and consumer nations, by supporting enforcement and training workshops, particularly in cross-border areas where priority tiger habitat is found; and

- Supporting efforts to work with traditional Chinese medicine communities in consuming countries, to disseminate information on tiger conservation needs, explore the use of substitute medicinal products, and develop appropriate consumer messages to reduce demand for tiger products.

Many of the priorities identified in this tiger strategy apply to rhinos as well. In some areas in Asia, tigers and rhinos share core habitat; thus, strengthening anti-poaching measures and improving habitat management in key areas can benefit both species. For example Nepal's Chitwan and Royal Bardia national parks and Bhutan's Royal Manas National Park are important areas for both the Bengal tiger and the Indian rhino.

WWF hopes that these suggestions prove helpful to the Fish and Wildlife Service as the Rhino and Tiger Conservation Fund gets up and running. We look forward to the fund proving as successful as its African elephant counterpart.

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The Future

WWF believes that the positive results of the projects supported by the African Elephant Conservation Fund and the enthusiasm expressed by our conservation partners in the field over establishment of the Rhino and Tiger Conservation Fund, are the most important signs of the strength of the acts that created them. They have allowed the U.S. to play a lead role where it really counts -- funding initiatives in range countries to help ensure the survival of these critically endangered species in the wild.

We understand that the Interior Appropriations bill for FY1997 contains $1 million for the African Elephant Conservation Fund and $400,000 for the Rhino and Tiger Conservation Fund. WWF strongly supports the increased appropriation and very much appreciates the action and foresight of the Appropriations Committee. As noted earlier, the elephant funds have generated more than matching support from other sources over the five years of the program's existence, and there is little question that many times the amount appropriated by Congress will come from the private sector and other sources for tiger and rhino conservation efforts. We hope that this year marks the beginning of an enhanced public-private partnership to preserve the African elephant, the tiger, and the world's rhinos for future generations.

Thank you.

PREPARED STATEMENT OF DAVID C. MURCHISON
PRESIDENT, SOUTHERN AFRICA WILDLIFE TRUST

BEFORE THE HOUSE RESOURCES COMMITTEE
SUBCOMMITTEE ON FISHERIES, WILDLIFE AND OCEANS

JUNE 20, 1996

Thank you, Mr. Chairman, for this opportunity to express my views on the effectiveness of the African Elephant Conservation Act of 1988 and the Rhinoceros and Tiger Conservation Act of 1994. I have been directly involved from the beginning in the consideration and implementation of these measures, and, in the case of the elephant statute, my comments are based on firsthand knowledge of its effectiveness in Africa.

I am President of the Southern Africa Wildlife Trust, a foundation organized under the terms of Section 501(c)(3) of the Internal Revenue Code to advance and carry out wildlife conservation projects in the southern Africa region. The Trust presently administers an important grant under the 1988 Act in Botswana, Zambia, Zimbabwe and Tanzania. I have also served as project officer in executing four other grants under the Act designed to reduce widespread commercial poaching of the elephant in Zimbabwe, Zambia and Tanzania.

The Southern Africa Wildlife Trust was established a few years ago by members of the African Safari Club of Washington who saw the need to become directly involved in efforts to reverse the rapid deterioration and degradation of African wildlife habitats and to develop and put into effect meaningful and effective conservation measures. Some years earlier, members of the same Club, including Kermit Roosevelt, Russell Train and Maurice Stans, had organized the African Wildlife Foundation essentially for the same reasons, and Judge Train, who was Chairman of the Club's Conservation Committee, followed a similar course again when he became head of the World Wildlife Fund of the United States. Both of these organizations, of course, have been very successful in their conservation work, especially in central and east Africa. The Trust is attempting to follow a like path in the southern Africa region.

Almost eight years have now passed since enactment of the African Elephant Conservation Act. Looking back, there can be little question that its authors had a remarkable understanding of the crisis confronting the elephant, as well as the foresight to provide effective remedies. We owe them an enormous debt of gratitude. The moratorium on all ivory imports into the United States, implemented promptly by President Bush in 1989, had the predictable effect of smothering demand for ivory, while the matching funds provision established the basis and the incentive for positive conservation measures to reverse the decline in elephant population numbers. This twin-pronged strategy has proven more effective than any of us dared to hope when Congressmen Fields and Beilenson crafted the legislation.

One of the earliest matching funds grants under the Act for which I had responsibility was aimed at reducing the high level of commercial poaching of the elephant in the lower Zambezi Valley of Zimbabwe. At the time, anti-poaching personnel of Zimbabwe's Department of National Parks and Wildlife Management were under-equipped and unable to interdict the many and well-planned incursions from Zambia of squads of heavily armed commercial poachers, who crossed the Zambezi River almost at will and killed huge numbers of black rhinos and elephants. Under the terms of the grant authorized by Constance W. Harriman, then Assistant Secretary of the Interior for Fish and Wildlife and Parks, we were able to provide state-of-the-art communications equipment, including hand-held six-channel radios with encoded transmission capability, four-wheel drive vehicles, generators, camp stoves, tents, sleeping bags and a variety of other essential items of field equipment sufficient to equip 181 men operating out of 15 base camps in three-man anti-poaching teams throughout the Valley. Since then, thanks to the leadership skills of Zimbabwe's wildlife department, and countless acts of individual heroism by rank-and-file rangers and scouts engaged in firefights with commercial poachers, a level playing field would appear to have been established and the number of incursions significantly reduced. We must not forget, however, that many anti-poaching rangers and scouts have sacrificed their lives in this struggle and continue to do so.

During a monitoring trip to verify the actual use of the equipment provided under this grant, I personally witnessed an incursion into the Zambezi Valley of a band of commercial poachers from Zambia, armed with AK47 assault rifles, and the firefight that followed. There were no fatalities during this contact, and the poachers were put to flight. Captured weapons and other effects confirmed beyond question, however, that they had crossed the Zambezi from Zambia and intended to return there.

I have administered similar grants in other areas of Zimbabwe and in Zambia and Tanzania, all having as a main purpose the reduction of commercial poaching. Without exception, these have been successful in accomplishing that purpose in significant degree. In each of these countries, commercial poaching has been -- and continues to be -- the greatest and most immediate threat to the elephant and the rhino, even though the two-pronged strategy of the ivory ban and conservation grants has achieved a reduction in the level of poaching. In the view of this witness, it would be a major mistake to assume that the devastating impact of poaching is a thing of the past. The fact is that poaching remains a major threat, one that must be reckoned with on a continuing and ever-vigilant basis.

In an effort to maintain public awareness of the enormous toll taken by international commercial poaching operators, the Southern Africa Wildlife Trust presently administers an innovative awards program designed to give due recognition to the rangers and scouts who have put their lives on the line in carrying out their dangerous anti-poaching missions. Under this program, qualified personnel are presented Awards for Meritorious Service to Wildlife Conservation. To qualify, a recipient must have participated in a hostile engagement with armed commercial poachers; he must have exhibited personal bravery in the course of the encounter; the

anti-poaching operation must have been a successful one, and the poachers must have been captured, killed or put to flight. Each award includes a laminated certificate of commendation, a bronze medallion to be worn on the recipient's uniform, a pair of high-quality binoculars to be taken on future missions, and an honorarium in the equivalent amount of $100.00. In Zimbabwe, Botswana and Zambia, we have also established a Roll of Honor on which the names of recipients are inscribed and which is part of the wildlife department's permanent personnel record. In addition, a bronze Roll of Honor plaque bearing the names of recipients is displayed at each department's headquarters.

It is gratifying that the awards program has enjoyed an extraordinary level of public acceptance in these countries of southern Africa. In April of this year, sixty-nine scouts and rangers received the award in an official ceremony at Hwange in Zimbabwe. Attached as Appendix 1 is a press announcement issued by the U.S. Information Service in Harare describing that ceremony. The event was shown on Zimbabwe's national television and was given page one treatment in its newspapers. A similar ceremony was held at Maun in Botswana later in the month and another in Tanzania in May, both of which also received wide public support.

Financial support for the awards program is provided by the U.S. Fish & Wildlife Service, the Houston Safari Club, the Dallas Safari Club and the Philadelphia Safari and Conservation Club. Its success has been due entirely to their unwavering commitment to wildlife conservation.

In addition to the grant funds it contributes to the awards program, the U.S. Fish & Wildlife Service is providing funds for 48 African elephant conservation projects in seventeen range states. It would be difficult indeed to find a better example of efficient and effective implementation of a Congressional enactment than the Service is providing in these projects. I have examined each of them, and, considered individually or as a group, there can be little question that they reflect and carry out the intent of Congress.

In the early 1990s, a little-known grant project administered by the American Embassy in Zimbabwe resulted in the development of an elephant conservation procedure without parallel in this century. In 1992-3, Zimbabwe suffered its most severe drought in many decades. The toll taken on wildlife was staggering. In Gonarezhou National Park, in the southeast lowveld region, hundreds of elephants died of thirst, and many hundreds more were faced with death by thirst or by culling unless a major rescue action could be mounted. At this point, a former officer in Zimbabwe's Department of National Parks, Clem Coetsee, developed a removal and relocation system that has forever changed elephant conservation principles. Under the Coetsee system, an entire family group can be darted from a helicopter, using haloperidol and trilafon, two relatively new tranquilizers. The immobilized elephants are initially loaded onto "capture trucks" and then moved to tractor-trailers, where they are placed in modified shipping containers. After receiving an antidote, the elephants are transported to predetermined new habitats. During the drought, Coetsee moved

well over a thousand dying elephants to new homes and thus averted a disaster of immense proportions. A grant under the African Elephant Act made this rescue possible. Since then, Coetsee has translocated over a hundred elephants from Kruger National Park in South Africa to new habitats. One such move involved relocating a family group of thirteen from Kruger to Waterburg in the Northern Transvaal, a distance of about 500 kilometers and requiring a trip of ten hours. There were no elephant fatalities, and Waterburg now has elephants again for the first time in one hundred years. Coetsee has managed similar relocations in Kenya, and at this hour is arranging to relocate several family groups in Uganda. In all of these instances, translocation has been the sole alternative to death.

The conservation significance of the Coetsee system cannot be overstated. For the first time in history, entire groups of excess, unwanted or dying elephants can be moved instead of culled. Today, in such countries as Botswana, Zimbabwe and South Africa (Kruger), elephant populations cannot be sustained in many established habitats. New habitats must be identified to receive these animals, unless they are to be dispatched on the culling grounds. Fortunately, there are many such habitats, both privately and publicly owned. In Zimbabwe, which now has a national population of about 64,000 elephants, the question of culling versus relocation is squarely presented. Experts have identified available habitats, but translocation costs and other factors raise a myriad of subsidiary questions. As noted, the same issues are present in Botswana, but solutions are similarly difficult to come by.

It is the considered view of this witness that the Coetsee system is invaluable and should be utilized. At the same time, ways must be found to reduce the costs of relocation. Due to the urgency of the problem, it would seem that the U.S. Fish & Wildlife Service again should give the matter priority in its administration of grants under the Act, just as it did in 1992 during the Gonarezhou drought. A solution in the near term would appear essential, unless the gains that have been made over seven years are to be forfeited.

Mr. Chairman, in the context of this oversight hearing, the men and women of the U.S. Fish & Wildlife Service who have worked on African Elephant Conservation Act matters since the late eighties deserve great credit for the job they have done. I would like to mention several of them on this record, even at the risk of leaving out a deserving name. Connie Harriman, John Turner, Doug Crowe, Marshall Jones and Ken Stansell each has played a vital role in performing the tasks directed by Congress, including the historic rescue at Gonarezhou. Without their dedicated involvement, I seriously doubt that the program in all of its aspects could have succeeded. While Ms. Harriman, Mr. Turner and Dr. Crowe are not employed by the present Administration, others continue to carry the torch with the same dedication. I am pleased to note that, only recently, the African Safari and Conservation Club of Philadelphia has presented its prestigious Gold Medal to Ken Stansell for his unflagging efforts as African Elephant Coordinator in the Office of Management Authority.

Most of all, we owe so much to Congressman Fields and Congressman Beilenson for their strength of purpose and perseverance in bringing this landmark legislation to fruition and then securing the necessary funding. One can only wonder who will speak for the elephant, not to mention the rhino and the tiger, after next January. Someone must follow their example, and do it effectively, or America will live to regret its failure.

Speaker Gingrich said it best when he observed last July on the floor of this House during consideration of continued funding of projects under the Elephant Act that "when we look at countries that have voluntarily imposed on their own local people economic deprivation in order to sustain these species so that our children and our grandchildren can have a chance to see some of the most magnificent animals in the modern era; and then to say that we are going to allow them to disappear, and join that dinosaur skull I have in my office and be extinct, for $800,000 total, it just seems to me that there are lots of other places to find savings."

Thank you, Mr. Chairman.

news release
news release

U.S. INFORMATION SERVICE. P.O. BOX 4010 HARARE TEL. 726990/7/8/9

SIXTY-NINE SCOUTS AND RANGERS TO GET BRAVERY AWARDS

Two American conservationists, David C. Murchison, President of the Southern Africa Wildlife Trust, and Kenneth Stansell, Chief of the Office of Management Authority and African Elephant Coordinator of the U.S. Fish and Wildlife Service, will attend ceremonies on April 13 at 1030 to honor 69 National Parks scouts and rangers at Hwange Main Camp. Environment and Tourism Minister Chen Chimutengwende will also be in attendence to present medals for bravery to outstanding scouts, rangers and other department personnel, who have exhibited personal bravery in direct armed contact with commercial poachers during successful anti-poaching operations in which poachers were captured, killed or put to flight.

U.S. Deputy Chief of Mission James Carragher, Mr. Stansell and Mr. Murchison will present awards for Meritorious Service to Wildlife Conservation. The two American conservationists will also give anti-poaching equipment to the Department of National Parks and Wildlife Management.

The award consists of a medal to be worn on the recipient's uniform, a certificate of commendation, a pair of field binoculars and an honorarium in the amount of US$100.00 In addition, each recipient's name is enrolled on the Roll of Honor of the Department of National Parks and Wildlife Management and will appear on the bronze Roll of Honor plaque displayed in the reception area of the department's headquarters in Harare.

The program of awards, which is approved by the governments of Zimbabwe and the United States, is administered by the Southern Africa Wildlife Trust and supported by funding from: the U.S. Fish and Wildlife Service of the Department of the Interior, the Houston Safari Club, the African Safari and Conservation Club of Philadelphia, the Dallas Safari Club, and the African Safari Club of Washington.

In addition to its grant to the Southern Africa Wildlife, the U.S. Fish and Wildlife Service is providing funding for 48 African elephant conservation projects in 17 countries in cooperation with African governments and non-governmental organizations. In Zimbabwe, the Service has provided funding for four major projects under Mr. Stansell's direction to conserve the elephant in cooperation with the Department of National Parks and Wildlife Management, the American Embassy and the African Safari Club of Washington, D.C.

The Houston, Philadelphia and Dallas Clubs are major independent safari organizations in the United States that also are committed to providing cooperative support for programs to conserve African wildlife.

April 9, 1996

SUPPLEMENTAL SHEET

David C. Murchison, President
Southern Africa Wildlife Trust
c/o Howrey & Simon
1299 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2402

202/ 383-6938
202/ 383-7189 (Mrs. Lopez)

SUMMARY:

The witness has been familiar with the African Elephant Conservation Act of 1988 since its inception. His knowledge of the effectiveness of the Act is based upon firsthand experience in Africa in the administration of grants under the Act. He has administered grant projects in Zimbabwe, Zambia, Tanzania and Botswana. The primary focus of these projects has been to assist wildlife departments in their anti-poaching enforcement activities.

The moratorium on ivory imports implemented by President Bush and the grant projects authorized by the Act have served the purposes intended by Congress. The rapid decline in elephant population numbers appears to have been arrested, and recent surveys in southern Africa suggest that populations in such countries as Zimbabwe, Botswana and South Africa have stabilized if not increased during the period the Act has been in effect. The authors of the Act and those responsible for its administration deserve great credit for this result.

Significantly, in the course of the administration of one grant project, an innovative method was developed in Zimbabwe to translocate elephant family groups by darting them with tranquilizing drugs and removing them by vehicle to new and viable habitats. Never before in history have large numbers of elephants been translocated successfully, and this new method (known as the Coetsee method) promises to become a major conservation tool in future efforts to save the elephant from extinction. It is recommended that the U.S. Fish & Wildlife Service give high priority to future grant applications designed to identify new and sustainable habitats to receive translocated elephants. It is also recommended that, as in the past, major emphasis be given to projects designed to reduce the incidence of commercial poaching, which continues to be the greatest immediate threat to the survival of the elephant throughout its range.

The African Elephant Conservation Act of 1988 should be continued. In no event should the level of funding be reduced below the current modest level. The Rhinoceros and Tiger Conservation Act of 1994 should also be continued and funded.

WILDLIFE CONSERVATION SOCIETY
FOUNDED IN 1895 AS THE NEW YORK ZOOLOGICAL SOCIETY

THE RHINOCEROS AND TIGER CONSERVATION ACT
and
THE AFRICAN ELEPHANT CONSERVATION ACT

TESTIMONY
before the
SUBCOMMITTEE ON FISHERIES, WILDLIFE, and OCEANS
of the
COMMITTEE ON RESOURCES
of the
U.S. HOUSE OF REPRESENTATIVES

Prepared by
Dorene Bolze
Senior Policy Analyst
Wildlife Conservation Society

June 20, 1996

I would like to thank the members of the Subcommittee on Fisheries, Wildlife, and Oceans for the opportunity to participate in this oversight hearing on the African Elephant Conservation Act and the Rhinoceros and Tiger Conservation Act. On behalf of the Wildlife Conservation Society, I would like to convey our strong support for these Acts and the funds they created to support conservation efforts for African elephants, rhinoceroses, and the tiger; comment briefly on priority activities these funds need to support; and discuss the need for a legislative change needed to address an oversight in existing law regarding products, such as Asian medicinals, that are being sold in this country labeled as containing tiger and rhino and/or other endangered species as ingredients.

I testified before the predecessor of this subcommittee in May, 1994, in support of the passage of the Rhinoceros and Tiger Conservation Act and the fund it would establish. In that testimony I discussed the conservation needs for all five species of rhinoceros and for the tiger and the urgent need for financial assistance. I will not repeat any of this information in this testimony and would refer members of the subcommittee to this prior testimony for background information on the status and threats to rhinos and the tiger.

The Wildlife Conservation Society (WCS) has been dedicated to better understanding and protecting wildlife and ecosystems since it was founded in 1895 as the New York Zoological Society. WCS scientists have greatly expanded our knowledge of species and habitats through pioneering, long-term field studies; have effectively promoted the cause of conservation through their direct role in establishing over 100 national parks and reserves;

have trained innumerable conservationists and wildlife managers in developing countries; have helped to nurture the institutions in which the latter must work; and have contributed key ideas to the on-going debates over natural resource management and conservation.

WCS, headquartered at the world-renowned Bronx Zoo, is presently pursuing its mission through over 250 field projects in over 52 countries in Latin America, Africa, and Asia; environmental education programs reaching schools in 47 states and overseas; endangered species propagation in New York and Georgia; clinical and research programs in wildlife health sciences; and five public wildlife conservation centers in the Bronx, Brooklyn, Manhattan, and Queens, including the Aquarium for Wildlife Conservation.

For over 30 years, WCS has been working to conserve the African elephant. We supported some of the first systematic surveys of elephant populations in the early 1960s and launched the first large scale survey of elephants in African forests in the mid-1980s. WCS has dedicated significant resources and staff expertise to field research, protected area management, and training in-country professionals in African forest countries. This complements our years of work on the African savannas, studying the ecological role of elephants and integrating the needs of local communities in management efforts. WCS initiated the Ivory Trade Review Group that assessed the effect of the ivory trade. The group's conclusions led the IUCN African Elephant and Rhino Specialist Group, chaired at the time by former WCS staff, Dr. Western, who is now Director of the Kenya Wildlife Service, to recommend a moratorium on the ivory trade in May of 1989. As member of the African Elephant Conservation Coordinating Group, who has been a recipient of funds from the African Elephant Conservation Fund established by the African Elephant Conservation Act, WCS has been working with African nations, especially in the forest zone to design and implement elephant conservation plans.

WCS has been working to protect rhinos in the wild since 1928 when it supported work by the Wild Life Protection Society of South Africa to create Kruger National Park. WCS efforts have involved purchases of vital rhino habitat for protected areas, ecological and behavioral studies, captive-breeding, genetic studies to address the validity of sub-species for conservation purposes, assessments of the range and status of rhinos, translocation of rhinos in Africa to re-establish populations, the establishment of protected sanctuaries in Kenya, and the funding of anti-poaching efforts in Africa.

Through the work of Dr. George Schaller, in the 1960s WCS completed the first extensive field studies of the tiger in the wild. Currently, we have undertaken a five-year Global Tiger Campaign which is a comprehensive plan to protect the tiger in viable populations throughout its remaining range. We are focusing on both establishing long-term conservation efforts for the tiger in the wild and reducing the illegal trade and demand for tiger products. WCS field scientists are involved in research, community development, and as technical advisors in every country containing tigers.

The Funds of these Acts are Valuable and Deserve More Financial Support:

WCS strongly supported the establishment of both the African Elephant and Rhinoceros and Tiger Conservation Funds. The African Elephant Conservation Fund (AECF) has been in operation since 1988 and is the model for the Rhinoceros and Tiger Conservation Fund (RTCF) which has just become operational this Spring and has not yet awarded any grants. There is no question that funds are scarce in many of the range states of these species. Thus, these funds offer financial resources that would otherwise simply not exist for specific efforts to conserve these species. However, the dollar value need to conserve these species throughout their ranges is many times greater that the combined $15 million annually over five years that these funds could potentially provide. Thus, it is vital to use these funds to leverage other support and other conservation action. One way the AECF does this is by requiring a one-to-one match for successful grants. The AECF also requires that grants will only be awarded to projects that have the support of the host government. This requirement reflects the need to cooperate with and support the needs of the range states as part of a successful project.

WCS has been the recipient of funds from the AECF and has been pleased with the minimal bureaucracy and relatively quick response to proposals and subsequent flow of funds. We are confident that the Department of Interior's Fish and Wildlife Service can continue to manage both funds well if they were to be fully appropriated. In addition, almost all of these funds would go to vital projects, since the Acts limit the overhead charge by the agency to 3 percent.

We are pleased to hear that the House Appropriations Committee increased the allocations for the Rhinoceros and Tiger Conservation Fund from $200,000 to $400,000 and for the African Elephant Conservation Fund from $600,000 to $1,000,000 for the Department of Interior's budget for the next fiscal year. We are especially pleased to hear of the increases in these funds in light of the severe threats of a zero allocation to these funds during the debates of ast year's budget. But, these allocations, especially for the RTCF, are a small percentage of what could be allocated. Of the seven species that these two funds support, strong arguments can be made that the Sumatran and black rhinos are the most endangered, yet the RTCF will only have $400,000 to share among all five species of rhinoceros and the tiger. Recognizing that there are budget constraints, at the very least the RTCF should receive $2 million, one-fifth of its possible $10 million appropriation. This recommendation is based simply on the RTCF receiving the same proportion of its total allocation that the AECF would receive.

Recommendations for project support for the African Elephant Conservation Fund:

Over the course of the AECF, emphasis has shifted from an original heavy focus on anti-poaching needs to addressing complex management questions and status reviews. This shift reflects the change in initial need from addressing the immediate threats from rampant

ivory poaching in many areas to focusing on long-term conservation needs and building the capabilities of range states to manage elephant populations. WCS has received support for several of our forest elephant research and conservation efforts from the AECF. The fund awarded $34,094 for our training courses in elephant biology and monitoring techniques to Ghanaian wildlife officers, $141,873 from 1994-1996 to support the largest on-going population study of forest elephants in forest clearings in Central African Republic, and $197,750, also from 1994-1996, to support anti-poaching efforts that included equipment and protection of the high density elephant population in the northern Congo.

WCS has focused much of our attention on the African forest elephant for the past eight years and would like to make a few comments on some of the priority needs that the AECF should support in the forest zone. As mentioned in the introduction, WCS conducted the first and only large scale survey of the African forest elephant over several years in the late 1980s. From this, we provided estimates of the total population to inform the ivory trade debate at the CITES Conference of the Parties in Lausanne, Switzerland. Our preliminary information indicated that prior assumptions that elephants were prevalent and secure in the forest zone were invalid and factored into the decision to list the African elephant on Appendix I and close the international trade. In fact, although one-third of all African elephants were found to be living in the rain forests, they suffered from an almost total lack of parks and inadequate protection. Now we must build on that baseline information and conduct a new regional survey of the major forest elephant countries. Without such follow up in the form of monitoring there is no way to assess how resources that have gone into protected areas, new logging management regimes, controlled hunting, and other conservation initiatives are affecting elephants. The ground based surveys that are used for monitoring efforts can uncover new or continuing poaching pressure, illegal ivory trading activity, and other potential threats. They can also identify key areas for new protected areas. A top priority for the forest region must be to follow up on the region-wide baseline surveys, now done over five years ago, and provide the much needed monitoring effort for the African forest elephant.

Recommendations for project support for the Rhinoceros and Tiger Conservation Fund:

In our prior testimony on the merits of establishing this fund, we discussed the general conservation needs for rhinos and the tiger. We would like to take this opportunity to refer to some recent efforts that would be valuable to the Fish and Wildlife Service in assessing meritorious projects to support.

Tigers:

Despite the large amount of publicity that tigers have received in the past few years, there have been no coordinated efforts to fully address both the short and long term conservation needs of the tiger. The WCS' Global Tiger Campaign was launched in response to this lack of a comprehensive conservation effort for the tiger. An initial effort was to assess past conservation efforts, assess the current threats, and develop a conservation

strategy. This is provided in Saving the Tiger: A Conservation Strategy, a WCS Policy Report, which was released in December of 1995. We have provided a copy to all of the members of the full committee.

Surprisingly little is known about the overall status, distribution, and ecological needs of the tiger across its formerly vast range, due to a lack of scientific research on most populations. In addition, management, legislative, and enforcement efforts in both countries with tigers and in consumer nations have been inadequate to non-existent. In order to reverse the decline of the tiger and stabilize populations in the wild, the immediate threats to the tiger must be addressed. This involves scientifically-based research and monitoring of tiger populations, improving on-the-ground protection and management of tigers and their prey, halting the illegal trade in tiger parts, and building public support among both people who live near tigers and consumers of tiger products. The heart of this strategy is to focus efforts on securing the long-term future of high priority tiger populations.

The top priority tiger populations need to be managed to protect tigers. Poaching needs to be controlled and human presence minimized in these tiger areas. Core areas that are critical habitat for tigers must be inviolate, and the landscape surrounding them needs to be carefully managed to meet the needs of local people. In addition, there must be a strong effort to stop hunting and enforce protected-area laws, monitor tiger and prey populations, and build public support among local people for the conservation efforts in these top priority areas. Complementing this on-the-ground effort is the need to halt the illegal trade. This requires prohibiting the trade, enforcing these laws, and reducing demand which is the driving force behind the trade. Saving the Tiger delineates the range of specific actions needed to accomplish this conservation strategy. This report has already been provided to the Fish and Wildlife Service and staff at the United States' Agency for International Development and the State Department. We offer it as a guide to the Fish and Wildlife Service in assessing project proposals to the RTCF.

WCS and WWF-US have just completed a preliminary assessment of a new ecologically-based approach to identifying the most important tiger conservation areas. The design of this priority setting framework and preliminary assessment was funded by the National Fish and Wildlife Foundation's Save the Tiger Fund, which was started by a $5 million gift from the Exxon Corporation. The assessment identified key tiger areas in a total of eight major tiger habitat types within five different bioregions— the Indian Subcontinent, Indochina, Sumatra, central and southern China, and the Russian Far East. The preliminary analysis, mostly based on satellite data on remaining habitat, identified 24 top priority conservation areas in all of the bioregions except central and southern China. Attached for the record is a copy of the executive summary of our the preliminary report to NFWF. We are now in the process of soliciting reviews and refining this document. We hope that this assessment will also help guide decisions on awards from the RTCF.

Rhinoceroses:

WCS and the World Wide Fund for Nature have almost completed an assessment of the costs and effectiveness of various approaches to protecting rhinos in the wild. When it is ready we will distribute copies to the Fish and Wildlife Service. One of the challenges to this assessment as been the varying quality and amount of data in order to perform similar analyses for all five species of rhinoceros. As was stated in prior testimony, unlike the other species of rhinoceros, no reliable estimate exists on the location and size of viable populations of Sumatran rhinos and their level of protection. It is essential to support much needed surveys of the Sumatran rhinoceros in order to design a conservation strategy for this species. WCS conducted an initial survey of the Sumatran rhino in Sabah's Greater Danum Valley Conservation Area which was known to have rhinos. Not only were fewer rhinos found in this remote area than expected (maybe 15-25 in the 1000 km^2 area), but there were many signs of illegal hunting, including poachers' camps.

Though there is little information on the status of the Sumatran rhinoceros, this does not mean that little conservation attention and funding has not been dedicated to this species. Unfortunately, much of this attention has not been focused on the top priority needs of anti-poaching, surveys, and local education. Instead financial resources have been devoted to the much more politically palatable work of attempting to establish a captive breeding program which does not address any of the immediate threats to the species. For the record, I have provided a copy of a recent essay by Dr. Alan Rabinowitz in Conservation Biology, "Helping a Species Go Extinct: The Sumatran Rhino in Borneo." Dr. Rabinowitz, WCS Director for Asia, critiques the efforts to conserve the Sumatran rhino and offers what are the priority needs for this species that RTCF can support.

Controlling Illegal Trade: Oversight in U.S. Wildlife Law on Traditional Asian Medicines

Complementing the need to protect tigers and rhinos in the wild is the need by consumer nations to control the illegal trade and reduce demand. One of the primary lessons to learn from the demise of the black rhino is that the valiant efforts by a range state to protect its rhinos or tigers against poaching is for naught if there is no equal effort by the importing countries to control the illegal trade.

In our previous testimony WCS commended the US government for focusing on the consumer nations for their role in the demise of the rhinos and tiger because of their lack of effort to control illegal trade. Until recently, there has been little attention placed on consumer nations. WCS supported the Secretary of Interior's certification of the People's Republic of China and President Clinton's import embargo on wildlife products from Taiwan under the Pelly Amendment to the Fisherman's Protective Act for continuing to trade in rhino and tiger parts and undermining the effectiveness of the CITES prohibition on international trade.

As a consequence of US and CITES attention to this issue, China, Taiwan, and South Korea have now prohibited the internal sale and use of rhino products, and China and Taiwan have done the same with tiger products. South Korea has finally joined CITES, though it imported two tons of tiger bone in 1993 from China in contravention of Chinese law banning exports. In China, most billboards and advertisements for tiger and rhino products have been taken down, and tiger bone wine and other products are no longer openly for sale in shops.

The illegal trade still poses a huge and immediate threat to the tiger and rhinoceroses. Undercover trade investigations have found that rhino horn and tiger products are still available in China, Taiwan, and South Korea. But, equally important is that market investigations have found that rhino and tiger products are widely and openly for sale throughout Europe and right here in the United States. WCS staff visited New York City's Manhattan based Chinatown twice this month and found every pharmacy we checked offering tiger products and many offering rhino products. Thus, it is time for the United States to focus on its role as a consumer nation.

Unfortunately, recent efforts over the past two years by the Fish and Wildlife Service to enforce the laws against the importation of endangered species products, such as Asian medicines with rhino horn and tiger bone as ingredients, have been hampered by the fact that not all of these cheap over-the-counter products appear to contain the animal ingredients as labeled. Currently, the Fish and Wildlife Service can confiscate these products on import under the presumption that they are made with tiger or rhino as ingredients, since they are labeled as such. However, when the Fish and Wildlife Service has been forced to prove that the seized products do in fact contain tiger bone, for example, the Fish and Wildlife Service Forensics Laboratory has not been able to find calcium, an indication of bone, in tested products. A further complication is that the manufacture of tiger bone plasters, glues, and similar products dissolves the proteins in the bone needed to identify the species origin of the bone. Since the agency can not prove that these products contain these prohibited ingredients, the agency has no authority to prosecute for the illegal importation of these products under the Endangered Species Act. Thus, the confiscated shipments are returned to the importer. These products do violate product labeling laws that are enforced by the Food and Drug Administration, but they do not violate the Endangered Species Act.

The problem of counterfeit products of endangered species or the difficult nature of proving the veracity of a product claiming to contain an endangered species was not foreseen when the Endangered Species Act was drafted. We strongly recommend that this committee support some simple language change to the Endangered Species Act that would expressly cover products labeled as containing species listed on the Act or on Appendix I of CITES. Such language would bring our laws on these products in line with the laws of Hong Kong, China, and Taiwan, the later two being countries that the United States has pressured to improve their laws on this very issue. This language change would eliminate the costly forensic lab tests and burden to prove that these products are real or fake. Instead, any product claiming to be made of an endangered species or CITES Appendix I-listed species is

illegal.

As just mentioned, some of these products already violate product labeling laws; however, the Food and Drug Administration has shown little interest in the problems presented by Asian medicinals. An exception is the regional office of the Food and Drug Administration out in Los Angeles which is cooperating with the regional office of the Fish and Wildlife Service. Asian medicinal use is not only a wildlife conservation issue, but human health issue as well. The Forensic Lab has found levels of mercury, arsenic, and lead in some of these over-the-counter Asian medicines that are above levels allowed for products for human consumption. This and other issues related to the lack of oversight on those claiming to be trained traditional Chinese practitioners are all the realm of the Food and Drug Administration.

Certainly from the perspective of the role of the United States as a major importer and consumer of pre-made, or over-the-counter, traditional Asian medicines that claim to contain rhino, tiger, and other prohibited species as ingredients, it behooves us to adjust our wildlife laws to address this issue. Senator Jefford's office has drafted a short bill which they hope to introduce soon that will add the necessary language to the Endangered Species Act so that the prohibitions apply to products labeled as containing listed species. I urge the committee to introduce a companion bill in the House to the same and work to pass it in this current session of Congress. This simple legislative effort would be a valuable complement to a well funded Rhinoceros and Tiger Conservation Fund.

A Framework for Identifying High Priority Areas and Actions for the Conservation of Tigers in the Wild

A Report Submitted to the National Fish and Wildlife Foundation in Two Parts:

Part I: A Framework for Identifying High Priority Areas for the Conservation of Free-ranging Tigers (*Panthera tigris*)

Eric Dinerstein[1], Eric Wikramanayake[2], John Robinson[3], Ullas Karanth[3], Alan Rabinowitz[3], David Olson[1], Tom Mathew[1], Prashant Hedao[1], Melissa Connor[3]

Part II: Controlling the Trade and Reducing Demand for Tiger Products: A Preliminary Assessment of Priority Needs

Ginette Hemley[1] and Dorene Bolze[3]

[1]World Wildlife Fund-US (WWF), [2]Consulting Biologist, [3]Wildlife Conservation Society (WCS)

with contributions by:
Bijay Kattel, Deputy-Director General, Department of National Parks and Wildlife Conservation, Babar Mahal, Kathmandu, Nepal
Zaaba Zainal, Conservation Officer, Department of National Parks and Wildlife, Kuala Lumpur, Malaysia
Sukianta Lusli, Director Sumatra Program, WWF-Indonesia, Jakarta, Indonesia
Judy Mills, Director, TRAFFIC East Asia
John Seidensticker, Curator of Mammals, National Zoological Park, Smithsonian Institution, Washington, DC
Chris Wemmer, Assistant Director for Conservation, Conservation and Research Center, National Zoological Park, Smithsonian Institution, Front Royal, VA
Steven Primm, Coordinator, Russian Far East Conservation Program, WWF-US

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Part I: A Framework for Identifying High Priority Areas for the Conservation of Tigers (*Panthera tigris*) in the Wild

Executive Summary

Tigers are threatened with extinction in the wild. The combination of rampant poaching of tigers and their prey–the former largely spurred by the Chinese medicinal trade–and unabated habitat loss due to fragmentation, degradation, and conversion has intensified the long-term threats to the survival of healthy wild populations. Responding to this crisis, conservation groups, donors, and national government agencies have distributed funds to halt the decline of tiger populations, but in an *ad hoc* manner. Most of the funding has been earmarked for a few protected areas, and in some cases, for activities that will do little to rectify the current crisis. Many important sites and activities have been overlooked for funding, largely because there has been no method of systematically identifying priorities. This project provides that method.

The ideal conservation strategy would be to protect all blocks of natural habitat containing tigers and to stop all illicit trade of tiger products. But due to limited financial and human resources, conservation activities must be prioritized for the next few years. Also, these priorities must also be set in a rational, transparent manner based upon the best data available.

To address these problems, we created an objective priority-setting framework to address four goals. First, we identified areas across the tiger range where conservation action and funds would have the greatest impact on conserving tigers over the long term. Second, we identify general approaches appropriate for high priority areas. Third, for the first time, we mapped tiger areas across the Indian Subcontinent, Indochina, Southeast Asia at a scale suitable for regional conservation planning. Fourth, we have identified priority countries and activities for building enforcement and trade control capacity and for reducing the demand for tiger products (see Part II of this document).

Our approach is *ecology-based*, rather than *taxonomy-based*, meaning that instead of seeking to conserve putative subspecies of tigers *per se*, we seek to conserve a suite of wild areas that represent the range of ecological conditions in which tigers occur. This approach recognizes that tigers are uniquely defined by the ecological conditions in which they live. A tiger population living in the boreal taiga of Russia will have different demographic, genetic, and behavioural characteristics than a population living in the subtropical alluvial grasslands of Nepal. By conserving examples of tiger populations in distinct bioregions, ecosystems, and habitat types, we meet a fundamental goal of conservation biology–*maintaining*

representation–while also conserving the range of communities in which tigers occur. The tiger "representation" approach has the favorable consequence that conservation efforts directed at tigers also protect many other species found in the same habitats, thus emphasizing the important role of tigers as "umbrella" species. To achieve representation, we first divided Asia into five distinct bioregions–the Indian Subcontinent, Indochina, Southeast Asia, Central and Southern China, and the Russian Far East (Amur-Sakhalin bioregion). We further divided bioregions into a total of 8 Tiger Habitat Types (THTs), in which approximately 159 Tiger Conservation Units (TCUs) occur. We relied upon local experts to evaluate the boundaries of the TCUs we delineated. Using GIS, we overlaid remaining habitat data, with data on roads, railroads, urban centers, villages, and agricultural land–features that restrict movement of tigers between habitat blocks. We formally defined TCUs as *a block or cluster of blocks of existing habitat that contains, or has the potential to contain, interacting populations of tigers.*

We evaluated TCUs on the premise that the decline of tigers across their range is caused by: 1) the fragmentation, degradation, and loss of habitat, and 2) intensive poaching pressure on tigers and their prey. These threats affect the integrity of the habitat, impoverish the biological communities in which tigers live, and reduce tiger populations. To index these changes, we created three variables: a) habitat integrity, which includes the size, degree of degradation, fragmentation, and connectivity of tiger habitat blocks; b) poaching pressure, which indexes the intensity of illegal hunting and potential for its control; and c) tiger population status, which indexes tiger abundance and recent trends in numbers within each THT.

For each TCU, a score was assigned for each of these three variables. We relied on regional and local experts to generate scores; these evaluations were augmented by published accounts and unpublished reports reviewed during this study. We then combined these scores in a weighted fashion, reflecting the reversibility of threats to tiger conservation. We considered a loss of habitat integrity to be the most difficult to reverse, and thus weighted this variable twice as high as poaching pressure, which can be turned around more easily. Poaching pressure, in its turn, was weighted twice as high as population status, reflecting the observation that tiger populations can rebound quickly if they and their habitat and prey are protected over sufficiently large areas. For each TCU therefore, we assigned a score for each of these three variables, and weighted these scores in a 4:2:1 fashion. Each TCU thus has a unique score, which reflects the probability of persistence of the resident tiger population over the long term.

TCUs were thus categorized into the following three levels:

Level I TCU: A TCU offering the highest probability of persistence of tiger populations over the long term. They are essential for a global tiger conservation strategy. Level I TCUs share the following attributes: large blocks of habitat suitable for tigers and prey with adequate core areas and low to moderate poaching pressure on tigers and prey species either as a result of remoteness or vigilant protection.

Level II TCU: A TCU offering medium probability of persistence of tiger populations over the long term. They contribute best to a bioregional tiger conservation strategy. Level II TCUs share the following attributes: moderate to large sized blocks of habitat suitable for tigers with adequate core areas and moderate to high poaching pressure on tigers and prey species, but with potential for implementing effective anti-poaching measures in the near future.

Level III TCU: A TCU offering low probability of persistence of tiger populations over the long term due to its small size, isolation from other habitat blocks containing tigers, and fragmentation within its respective THT. With intensive management and protection, Level III TCUs can harbor small populations of tigers. Level III TCUs share the following attributes: small blocks of habitat suitable for tigers with little or no core area and high poaching pressure on tigers and prey species that endangers conservation efforts.

TCUs requiring immediate surveys: Any TCU that potentially contains extensive blocks of appropriate tiger habitat with or without protected core areas, but data on habitat quality, poaching pressure, or population status for the most important habitats within the TCU are lacking.

During the process, scores for each TCU were compared only with other TCUs that *shared the same Tiger Habitat Type (THT) within the same bioregion*. Thus, we did not compare TCU scores from the Indian Subcontinent bioregion with TCUs from the Southeast Asia bioregion, nor, *within the Indian Subcontinent bioregion*, did we compare TCUs from the Alluvial Grasslands THT with TCUs from the Tropical Dry Forest THT. This approach ensures better representation of predator-prey dynamics and regional patterns of biodiversity across the range of the tiger.

In all, we identified 24 TCUs as Level I (15% of all TCUs), 22 as Level II (14%), and 101 as Level III (63%). The Level I TCUs are recommended as highest priority areas and should be the target for soliciting proposals to conserve tigers. Although we stress a biogeographic rather than a country approach to setting

priorities, we point out that all tiger range states contain at least one Level I TCU. We also identified 13 TCUs (8%) that require Immediate Surveys. We urge the financing of surveys in these TCUs immediately to better rank these TCUs and determine their contribution to a regional tiger conservation strategy.

We also discuss the prospects for tiger conservation in the two other bioregions, the Russian Far East (RFE)and Southern China. Based on extensive conservation planning already completed in the RFE and the major gaps in knowledge about tigers in Southern China, we recommend appropriate conservation activities to determine the current status of tigers (Southern China) and better protect tigers and their habitats (RFE).

The results of this study give important new knowledge about tiger conservation (illustrated in accompanying maps, graphs, and databases). We found that:

1) Virtually all of the Level I TCUs straddle or lie near international boundaries. The exceptions are a few units in central and southern India and Sumatra. This result will be essential for venues like the Global Tiger Forum to ensure that trans-boundary conservation activities are given high priority. It will also support the rationale for the trans-boundary initiatives already underway in Asia.

2) Strict protected areas typically cover only a fraction of a TCU. This spatial relationship has particular relevance in India which contains more tigers than any other country. Half of all tigers in India live outside official Project Tiger reserves, but much of the remaining half are restricted to other protected areas that are not official Project Tiger reserves. While tigers do exist outside sanctuaries and reserves, reproduction of tigers in these exterior habitats is low or may be nonexistent. This study points toward the need to upgrade management for biodiversity in many of the larger TCUs to maintain the long-term health of tiger populations and their habitats. This goal will likely require increased cooperation among multiple sectors of national and state governments.

3) Several Level I and II TCUs are very large, and we recognize that they will not receive complete protection. Since tiger habitat is being rapidly lost, this study can serve as leverage for more "conservation-friendly" land use and improved landscape management within these high-priority TCUs. If proper use is planned and enforced, habitat linkage zones, effective core areas, and buffer zones can be better maintained.

4) The habitat integrity index used in this study provides only a snapshot in time as to habitat quality within each TCU. The length of this study was too short to assess the trajectory of tiger habitats over the next 10-20 years. However, we point out that some of the most intensive, large-scale logging in the Indochina

bioregion is occurring or slated for many of the Level I TCUs, and many of these same areas suffer from intense poaching of tigers and tiger prey. We urge finer-scale studies focusing on Level I and Level II TCUs to assess trajectories.

5) The only prime example of a TCU that conserves a representative unit of tigers living in mangrove ecosystems is the Sundarbans TCU on the border of India and Bangladesh. Other TCUs containing mangroves in Indochina or Southeast Asia are mere remnants of mangrove habitat and tiger populations are severely depleted. Thus, the Sundarbans TCU emerges as a global priority for tiger conservation.

6) There was no significant relationship between the size of a TCU and its score (i.e., value as a high priority TCU). Thus, the largest blocks of remaining habitat may not always be the best areas to conserve tigers. Some large blocks are quite degraded across most of the TCU or are not considered prime habitat. In other words, one cannot simply select the largest blocks of habitat and assume to have identified the most important units.

In sum, this analysis should help guide international donors to those areas requiring immediate attention while simultaneously allowing them to make a more cost-effective investment in tiger conservation. From a possible list of 159 TCUs, we strongly recommend a portfolio of sites that, at a minimum, include some portion of the TCUs classified as Level I, II, or targets for surveys. These TCUs best capture the intrinsic biodiversity value of tigers, the ecological value of tigers as top predators in ecosystems, and the importance of tigers as "umbrella species" for conservation.

Part II: Controlling the Trade and Reducing Demand for Tiger Products: A Preliminary Assessment of Priority Needs

Executive Summary

The most immediate threat to tigers is poaching, particularly for the trade in tiger parts for use in Asian medicinal products. Until very recently, however, conservation efforts have focused almost exclusively in protected areas and reserves that contain tigers and have not addressed the increasing illegal trade in tiger parts that drives much of the poaching. It has become critical to focus on controlling trade as one element of a comprehensive strategy to conserve the tiger in the wild. In 1994, over 100 countries, including key consumer and tiger range states, supported a specific CITES tiger resolution which addresses the needs associated with trade control, enforcement, and reducing demand for tiger products.

The needs associated with trade control fall into two principal categories: strengthening capacity to control the trade and reducing demand for tiger products. This preliminary assessment identifies immediate needs and offers specific actions for addressing them.

Strengthening the capacity of countries to control the illicit trade in tiger parts and products requires law enforcement infrastructure, including specific laws with meaningful penalties, government agencies with clearly defined responsibilities, trained manpower, and intelligence-gathering networks. Our assessment identified eleven priority tiger range countries and four priority consumer nations for targeting efforts to improve trade control capabilities. We recommend five specific activities to address training and technical needs: holding workshops to address enforcement communication, information, and collaborative training issues, particularly in cross-border areas; undertaking detailed reviews of capacity-building needs as a basis for developing enforcement and trade control plans; establishing tiger trade monitoring networks to collect and disseminate information; developing identification guides on tiger parts and products to improve enforcement; and conducting independent market surveys to determine levels of trade, monitor trends, and assist in trade control efforts.

Effective legislation is essential to controlling trade in tiger parts and products but is lacking in almost every tiger range state and major consumer nation. In response to international pressure, several consumer nations have recently enacted specific domestic measures to control the tiger trade, but it is too early to determine the longterm effectiveness of these. We therefore recommend conducting detailed reviews of tiger trade control laws and regulations and making

recommendations for strengthening provisions. We further recommend that appropriate assistance be provided to Bhutan, Cambodia, Laos, and Myanmar to encourage formal participation in CITES.

Reducing demand for tiger products is also critical to successful long-term conservation of tigers in the wild. Currently little is known of the demographics of tiger product users, the possible alternatives that might be advocated as replacements for tiger products, and associated market dynamics. Efforts that target these issues should focus primarily on the East Asian markets of China, Hong Kong, Taiwan, Singapore, South Korea, and Japan, as well as the large Asian communities in the United States, Canada, and Europe. In addition, it is critical to build general public support for conserving tigers and an understanding of the links between tiger product consumption and the decline of the species in the wild.

We recommend specific activities that target three different audiences in the priority consumer countries: traditional Chinese medicine (TCM) practitioners, users of tiger products, and the general public. It is essential to design and implement these activities within the cultural context of the different target audiences. The recent international symposium on traditional Chinese medicine and wildlife conservation sponsored by TRAFFIC, WWF, and the Hong Kong government, underscored that working with the TCM community is a top priority. Efforts with the TCM community need to focus on disseminating information on the relationship between the decline of the tiger and use of tiger medicinal products, exploring possible substitute products, enlisting the support of the TCM community in trade control efforts, and collaborating on consumer education efforts.

Broad public awareness efforts are also needed to target the general public and should be linked with specific efforts targeting the TCM communities and tiger user groups. Four specific activities we recommend are: using tiger public awareness coordinators to develop a suite of outreach and educational efforts, enlisting corporate and international advertising and marketing support to disseminate tiger conservation messages, designing school curricula on tigers accompanied with training teachers, and designing a general educational kit that addresses the range of tiger conservation issues for use with a wide variety of audiences. These same activities are also recommended to build public support for conserving tigers in range countries.

Prepared Statement of Tony Fitzjohn, Field Director, Mkomazi Game Reserve, Tanzania

THE MKOMAZI PROJECT

SUBMISSION TO THE SUB COMMITTEE BY TONY FITZJOHN ON BEHALF OF THE GOVERNMENT OF TANZANIA AND THE GEORGE ADAMSON WILDLIFE PRESERVATION TRUST

1. CURRICULUM VITAE

Field Director, The George Adamson Wildlife Preservation Trust . Resident in Africa since 1968. Worked in the field in Conservation and Operational Programmes since 1970. Nearly 18 years in the Kora National Reserve (now Kora National Park), North Central Kenya, working on rehabilitation programmes for lions and leopards. Constantly exposed to problems of poaching and habitat destruction rendered more acute by position of Kora in disputed border zone between Kenya and Somalia and the southerly movement of Somali tribesmen, their families and ever increasing stock as years of mismanagement , poaching and overstocking have turned their own homelands into a desert. This was dramatically illustrated by the murder of George Adamson in 1989..

Since 1989 Wildlife Advisor to the Ministry of Tourism, Natural Resources and Environment, Government of Tanzania, working in the Mkomazi Game Reserve on programmes of habitat renewal, the restoration of infrastructure and practical endangered species programmes involving the African Wild Dog (Captive Breeding and Translocation) and the Black Rhinoceros involving the construction and stocking of Tanzania's first Rhino Sanctuary in 45 sq. kms. of thick bush rhino habitat. This is a subsequent development of the George Adamson Wildlife Preservation Trust and has been a physical and critical success to date.

An educational and village assistance programme, demand led by the villagers themselves, has been in place for the past 4 years and will ultimately cover a minimum of 41 villages. Support includes the rebuilding of schools, creation and support of Women's Groups, football teams, the building of a day Technical Secondary School, a handicapped children's unit, fees to pay for children's school fees, training of a teacher at the Wildlife College, hospital runs, the rebuilding of a large dispensary and hospital and more

The funds have been obtained (privately) for a Conservation Tourism Development to build a top end of the market eco-tourism lodge to act as the first real revenue base for the Mkomazi Game Reserve and to provide a presence that will assist greatly in both the protection and understanding of the area. It is also expected to make a profit after the first few years of operation.

Funds raised and applied to date are in excess of U.S. $ 1 . 5 million and the same amount will be invested over the next 5 years in the above programmes.

Lecture given at The Royal Geographical Society, London, on work in Africa and management past, present and future.
Lecture given and Member of The Explorers Club, New York
Nominator for the Goldman Environmental Prize since 1989
Pilot with a Cessna 206 Robertson. Over 2000 hours flown on surveys, game counts, anti- poaching patrols
Self- taught and part trained mechanic, electrician, builder, plumber , civil engineer etc
Background of George Adamson Wildlife Preservation Trust and Mkomazi Project , Appendix 1

2. CORE SUBMISSIONS

1. THE CITES BAN IS SUCCEEDING. WITHOUT THE BAN THE AFRICAN ELEPHANT WOULD HAVE BECOME EFFECTIVELY EXTINCT.

2. THE LIFTING OF THE BAN OR DOWNGRADING FROM *CITES* APPENDIX 1 WOULD CAUSE AN IMMEDIATE AND IRREVERSIBLE CRASH IN POPULATION AND INEVITABLE RELISTING AS ENDANGERED .

3 . THE PRESENT ESCALATION IN POACHING IS A MARKET RESPONSE TO A PERCEIVED SOFTENING OF THE BAN AND INTERNATIONAL OPINION .

4. THE ECONOMIC CASE FOR RETAINING THE BAN IS COMPELLING.

5. THE FUTURE SURVIVAL OF THE ELEPHANT AND TRADE IN IVORY IS BEST SECURED BY AN INTERNATIONAL TRUSTEESHIP LINKED TO DEBT CONVERSION.

3. THE STATISTICS

Wildlife Statistics are always difficult and flawed. In Africa they are highly suspect . (see " Four Years After The CITES Ban: Illegal Killing of Elephants, Ivory Trade and Stockpiles" by H.T.Dublin T. Milliken and R.F.W.Barnes pp 86.)

Accountability is very poor.

Two years from the ban is far too soon to make even tentative conclusions. The calves being born now must have a chance to reach breeding maturity before any judgements are made.

Enforcement of all or any regulations imposed on trading and export are rudimentary. The more complex and sophisticated the regulations become the more hopeless, corrupt and unworkable become their implementation.

Any quotas or controls are virtually impossible to maintain.

4. EVIDENCE FROM THE FIELD

Real evidence comes from the field from those who are able to observe clearly on a daily basis patterns in population and movement and the effect of natural and human influences and from those who are neither reluctant nor afraid to both record and share this information.

The filling in of questionnaires and the more vociferous criticisms in "safe" areas where there is obvious human / animal conflict do not come into this category.

There is a near unanimous view that the ban has been a success (see Dublin , Leakey , et al)

Day to day observations from Wardens, Rangers and academics in the field confirms the increase in elephant populations and regular breeding beyond any doubt .

The contrast from the pre-ban days is enormous . (see Appendix 2 : Daphne Sheldrick's notes on Tsavo National Park - only one area - just before the ban in 1989.) If the ban is not extended for another long period, or the elephant is downlisted to CITES Appendix 2, there is no doubt that this sort of killing will start all over again.

The result of the ban was a vast increase in morale, not just amongst the field staff protecting the elephants but within society as a whole. The psychology of success.

The protection of the elephants and their habitats automatically gives added security to human populations surrounding the wildlife areas.

5. FUNDING

The funding to NGO's (Non Governmental Organisations) has and will increase with the perception of success. The pressure is off Government's meagre Treasury returns to the Wildlife Sector and reluctance to go into further debt on aid budgets purely for Wildlife.

It is a fallacy to think that more money will become available the worse it becomes and the private sector NGO's will come to the rescue and take over a last-stand rescue operation.

The more cataclysmic the situation becomes the less they will get. So much more will be needed to clear up the mess and a lot less will come in assistance. It will be perceived as throwing good money after bad when the chance to do something in time had already existed and been deliberately ignored or passed over.

Government funding after the ban was still at high levels . Holly Dublin's statistics were misleading for Kenya as the new parastatal Kenya Wildlife Services funded an enormous amount of anti poaching field work directly from Headquarters in Nairobi as individual Park budgets were reassessed along with personnel.

6. THE INCREASE IN POACHING, STOCKPILING AND THE BLACKMARKET

The ivory trade, legal or illegal, is a market like any other and reacts swiftly to economic change, REAL OR PERCEIVED.

The present increase in poaching and stockpiling (see Dublin et al) anticipates a possible relaxation in the ban and has been coincidental with anecdotal reports from the field to that effect. Poaching is rampant in Zaire with Sudanese gangs crossing the border daily and cutting down elephants in their hundreds with automatic weapons. Uganda is being hit badly and southern Tanzania is seeing a return to pre ban poaching. Even Kenya , with better law enforcement and infrastructure is seeing a severe rise in poaching after 6 years of dedicated service by Wildlife personnel, many of whom have given their lives .

The effect of the ban has been virtually to close the European and North American markets to ivory products. As expected, there is evidence that new markets are opening for illegal trade, mainly Taiwan and North Korea.

Relaxation of the ban sends precisely the wrong message to all the markets and will vastly increase the demand for illegal ivory.

It is a matter of record that In most states control and accounting systems are totally inadequate to restrict the trade.

7. ECONOMICS

The economic prosperity of East African states is strongly linked to tourism, and wildlife forms the central core as reflected in all the statistics .

The protection and presence of the elephant exemplifies success or failure in these Government's policies in perpetuating its ' wildlife for future generations' and as a world natural resource.

Poaching and associated lawlessness is fatal to tourism (Kenya is an example of this at present.) . Countries with poor infrastructure do not stand a chance.

Economic success reduces dependency and pressure on Western aid budgets.

Assistance to Third World range states may be achieved by debt relief linked to environmental protection. This has been done before in Debt for Nature.

8. STOCKPILING AND ILLEGAL TRADE. THE SOLUTION

With a notoriously ineffectual licensing system and 90% of the Ivory in South Africa in private hands, with a trade that never has been, or ever will be able to be controlled and given the fact that it is physically impossible to protect the elephants in some of the huge tracts of land they survive in (e.g. Tsavo, Kenya, Selous , Tanzania) and population figures for elephant that could be halved if note was taken of the viable areas in which they might remain, it is clear that any resumption of trade or downgrading would be a disaster of epic proportions.

The future lies in an **International trustee system** to regulate storage and eventual trade and as part of this development there must be an International consensus that the ban on the ivory trade will last a considerable period of time, certainly 20 years at a minimum . In this way "anticipatory" stockpiling of ivory will be terminated.

The United States of America are the world leaders in environmental matters and they must lead the way for the others to follow. If they do not then the elephant is doomed, Africa is diminished and future generations will blame us for their grief.

Tony Fitzjohn
Field Director
The George Adamson Wildlife Preservation Trust

USA

Suite 203
1350 South Abbot Kinney Boulevard
Venice
California 90291

c/o Global Communications for Conservation
150 East 58th Street
New York
New York 10155

Tel: 212 838 9800 Fax: 212 753 0731

UK

2 Marchmont Gardens
Richmond
Surrey TW10 6ET

TANZANIA

Mkomazi Game Reserve
P O Box 376
Same
Kilimanjaro Region

THE MKOMAZI PROJECT

APPENDIX I

THE GEORGE ADAMSON WILDLIFE PRESERVATION TRUSTS

The George Adamson Wildlife Preservation Trusts UK, USA and Holland were founded in the late 1980's, shortly before the murder of George Adamson in Kora National Reserve in Kenya. The Trusts are dedicated to the continuation of his work and specialise in the rehabilitation and rescue of threatened ecosystems and endangered species. The Trusts are now expanding to Germany.

Since 1989 the work of the Trusts has centered upon The Mkomazi Project through their Field Director, Tony Fitzjohn. Since that time, over one and a half million dollars have been invested in this unique undertaking. The Trusts have commenced critically important projects to reintroduce endangered species, namely the African Hunting Dog and the Black Rhinoceros.

The Trusts are primarily funded by small groups of individuals and also achieve considerable support and assistance from corporate sponsors and charitable institutions. In the past, invaluable support and assistance has come from the Friends of Mkomazi, Global Communications for Conservation, Tuskforce, Tusk, BP, Ray Rowe Trust for Animals, British Airways, Sir Anthony Bamford (who has donated a JCB), Friends of Serengeti, Save the Rhino International, The Born Free Foundation, The Elsa Conservation Trust, The Royal Geographical Society, Neumann's Coffee Group, Friends of Conservation and many others.

The Trusts represent a new spirit of direct 'hands on' dynamic conservation, concentrating limited resources to the best conceivable effect. The conservation of the environment and wildlife is now the subject of many excellent projects. However, The Mkomazi Project has a unique aspect. The rebuilding of the Mkomazi Game Reserve, the rehabilitation of its wildlife, the endangered species programmes and the outreach programmes do not simply attempt to 'hold the line' on conservation. They are an endeavour to re-establish a complete ecosystem and thus positively reverse the damage that has been done. In addition to limiting this damage, it is also essential that we should now master the techniques of revival and renewal, in order that an ecosystem becomes self sustaining. That process is the driving force of The Mkomazi Project. For that reason it is believed to be one of the most important projects in Africa today.

THE MKOMAZI PROJECT

The Mkomazi Game Reserve occupies 1,500 square miles of Tanzania immediately adjacent to Tsavo National Park in Kenya. Together they form one of the largest ecosystems in Africa. Surrounded by the Pare and Usambara Mountains and within sight of Mount Kilimanjaro, Mkomazi is potentially one of the most beautiful and important game reserves on the continent.

Until 1988, it represented a classic example of ecological decline and degradation, over grazed, persistently eroded and the subject of indiscriminate and widespread poaching. In 1988, the Tanzanian Government commenced The Mkomazi Project, with a view to ensuring the complete rehabilitation of this vast area and the reintroduction and establishment of its endangered species. The Mkomazi Project was awarded National Priority Status.

The George Adamson Wildlife Preservation Trusts have been the Government's main partner in this unique and important endeavour. Since 1988 the entire resources of the Trusts have been devoted to this project. Roads and airstrips have been cleared, a radio network has been installed with full reserve coverage, rangers have been supplied and equipped, water sources have been sited and pumped, countless airmiles have been flown on anti-poaching patrols and the result has been one of spectacular success. One of the most fragile, threatened and beautiful parts of Africa has been reborn.

As part of the programme, the Trusts are now engaged in the rehabilitation and reintroduction of endangered species, namely the African Hunting Dog and the Northern Black Rhinoceros. East Africa's first captive breeding and translocation programme for the African Hunting Dog has commenced in Mkomazi, with the arrival of twenty five African Hunting Dog puppies in August 1995. The Trust has also constructed Tanzania's first rhino sanctuary, a 50 square kilometre development with heavy electrified fencing and security. East African Black Rhinos are being bought at a premium of $60,000.00 each from National Parks Board South Africa, where they have been breeding this particular sub-species for the past 34 years and are now prepared to return them to East Africa, as long as their stringent conditions are met. Tanzania held over 10,000 rhinos less than twenty years ago; today maybe 50 have survived. The opportunity to start the first breeding programme for the Blank Rhino in Tanzania is being supported by many wildlife organisations throughout the world, but more help is needed for the ongoing annual running costs to ensure both the peace and safety of these remarkable animals.

The Trusts have obtained private funding for the building and development of a Conservation Tourism Lodge in Mkomazi, where the majority of the profits go back into the local communities, the rhino sanctuary and the management of the reserve, thus making the reserve virtually self sustaining.

The Outreach Programme covers the 41 villages surrounding the reserve. This educational and village assistance programme, demand led by the villagers themselves, has been in place for the past 4 years and will ultimately cover a minimum of 41 villages. Support includes the rebuilding of schools, creation and support of Women's Groups, football teams, the building of a day Technical Secondary School, a handicapped children's unit, fees to pay for children's school fees, training of a teacher at the Wildlife College, hospital runs, the rebuilding of a large dispensary and hospital and more.

The poaching in and around the Tsavo National Park became so serious in 1988 that I started to keep a Diary. Here are some extracts.

Mid May 1988	6 Elephants gunned down Lualeni Ranch abutting Tsavo.
End May 1988	5 Elephants gunned down near Tsavo West. 3 Elephants gunned down a few days later. 24 Carcases found by Bill Woodley and Patrick Hamilton a few days later.
June 1988	4 Elephants gunned down in Mara.
26.6.88	1 Elephant shot by Rangers - dying of gun-wounds.
27.7.88	1 Elephant reported with a Ring Trap around its neck. Rangers all uncooperative and surly - elephant never found despite an intensive search. Presumed poached by the Rangers and the tusks sold.
July	Elephant poaching rampant and completely out of control - being gunned down wholesale along the Voi River, at Kowito in the Park and on the Galana. Orphan attendants reported seeing poachers on the Voi river, 2 miles from the Park H.Q., but no action taken. Patrick Hamilton sent down to do a recce and found about 60 dead, including Orphan Bukanezi (aged 18 years).
4.8.88	3 Elephants found dead by Simon Trevor along the Voi River.
	500 fresh carcases seen by Bill Woodley and Patrick Hamilton in Tsavo East alone. The elephants on the Eastern boundary all but annihilated.
August	60 Elephants gunned down near Jipe in Tsavo West.
	50 gunned down at Kasigau just outside the Park.
24.8.88	4 Elephants shot whilst drinking at Shaba in Northern Kenya, as they were being photographed by tourists and Tor Allen. Further shots heard intermittently throughout that day and the next, so obviously many others bit the dust. 16 Carcases counted later.
	20 killed in Meru National Park.
	50 Elephants gunned down on the Tiva in

Tsavo East.

September 6 Elephants lying dead in a heap in Meru National Park. Seen by Tim Corfield.

Marcus Russell reports Elephants being masaccred in droves in Tsavo East National Park.
1 cow shot in the process of giving birth.

Tourist Car shot at in Meru National Park and a tourist shot in the chest.

14.9.80 The President says that poachers can be shot on sight in Kenya's National Parks.

19.9.88 Shootout on the Ranches bordering Tsavo left 6 Policemen wounded and 1 dead. No Shifta casualties. Papers full of General Service Unit/Poacher engagements but more GSU casualties than poachers.

2.10.88 12 Elephants gunned down in the North.

15.10.88 Reports reveal that the Security Forces are not prepared to mix with the Somalis. At encounters, belts with ammunition and guns are abandoned and they run. Warden Kioko saw 95 bandits feasting on a giraffe; reported this to a GSU unit nearby, but they did nothing. There are reports that Ivory is actually being carved in the bush supervised by orientals.

13 Elephants found killed in Tsavo East. An orphaned baby found near Ndara was said "to be the result of recent killings".

Another small orphan seen near Dida Harea in the Park - never retrieved so must have died.

18.10.88 Vet flown down to try and save a wounded Elephant riddled with bullets. No hope of recovery, so the Elephant was shot.

Ray Mayers (on a Ranch bordering Tsavo) says that the elephants that used to frequent his Ranch are no more. All the smaller game also massacred. Only a few dikdik, lesser kudu and a handful of impala remain.

24.10.88 7 Elephants found dead by Ken Sheldrick in Meru National Park. Elephants there all pathetically terrified and huddled near the Lodge (40 odd). 6 Somalis seen

strolling down the road.

19.10.88 — 24 Elephants gunned down on the Ranches bordering the Park.

Jill Woodley went down to Tsavo East to try and retrieve some of the orphaned babies constantly being reported by tourists.
2 Baby elephants found freshly killed by lions. Gunshots heard nearby.
1 baby elephant killed by lions at Sala in Tsavo East.

30.10.88 — 4 Elephants found dead near Sala in Tsavo East - obviously the result of the gunshots heard earlier.

1 Elephant poached near Buchuma. Shifta gang feasted in a local African pub, one man guarding the door with a gun - then stole some goats and made off.

2 baby elephants found dead near Buchuma in Tsavo East. Marcus Russell reports masses more killed by lions, some running around wounded with broken legs, lost and terrified, screaming in fear.

31.10.88 — Shifta raided Meru Park H.Q., and masacred the Park's 5 semi tame White Rhino, took the horns and got clean away on foot as the Ranger force cowered under beds and in the bush. It really looks like the END of wildlife and there seems NOTHING that can be done.

1.11.88 — 8 Elephants shot near Kitich Camp in the Mathews Range.

12.11.88 — 10 Elephants gunned down at Dika in Tsavo East.
1 small orphan killed by lions.

7.12.88 — 14 Elephants gunned down between Aruba and Kulalu in Tsavo East.

8.12.88 — All the rhinos in the Meru Rhino Sanctuary have been poached.

Ken Taylor of Galana Ranch held up at gunpoint by Shifta who stole the content of the safe. "We are not afraid of those women!" they scoffed, referring to the G.S.U. and Rangers.

Kitich Camp, Mathews - 2 employees shot by Somalis in front of clients.

10.12.88 9 Elephants gunned down by Shifta in the Northern Area Tsavo East.
2 orphaned babies seen from the air but never retrieved.

January 89 12 Somalis have apparently been killed in Tsavo over the last few months and the Park is apparently quiet. Also amazing rains throughout.

144 Elephants killed in Tsavo National Park up until the 20th May 1989 when Leakey was appointed with a mandate to "clean up the Department". He fired about 4,000 personnel.

12.6.89 Elephant Count Results:- 5,600 in Tsavo Ecosystem; 17,000 in Kenya overall.

Note:- This was the first comprehensive count undertaken since David left Tsavo. Using his Block Maps some 8 aircraft with experienced observors counted the area over three or four days.

January 1990 About 35 elephants poached between January and March, about seven of them in Tsavo near Kiasa and Lali.

Mrs. Thatcher's release of Hong Kong stocks responsible.

March 24th 1990 :- 12 elephants killed in Tsavo East, eight between Voi and Lugards Falls and five just outside the boundary at Kulalu. 6 Policemen killed in an ambush at Koni, several others wounded.

January 1993:- 7 Elephants shot on the Yatta, each with a frontal brain shot, presumably by a Somali marksman/ poacher.

Dr. Leakey left the Kenya Wildlife Service in March/April 1994. Western appointed end of May 1994.

June 1994 Tsavo Elephant count. Undertaken under the direction of Dr. Iain Douglas Hamilton again using the same Block Maps as before and numerous aircraft with experienced observers.
6,700 Elephants in Tsavo itself.
7,000 in the Tsavo Ecosystem.

No fresh carcases seen in the Park. One seen in Mkomazi.
Overall Kenya population estimated at 15,000.

Note:- The Tsavo ecosystem in the sixties was estimated to hold roughly 35,000 40,000 elephants (an area of 16,000 square miles encompassing both Tsavo East and West National Parks and the areas surrounding them, including Mkomazi in Tanzania; in other words, a count of all the elephant that could conceivably utilise the Park were they driven in by human expansion or poaching). The Elephant Die-off which took place in 1970 took a toll of 9,000 elephants from malnutrition. The post die-off count of the ecosystem brought up some 20,000, 14,000 of these being in the Park itself (East and West). The count was thorough only in the Park itself because there were not the resources to do the

entire ecosystem in the same intense way.

A clandestine undercover count undertaken by concerned individuals in 1979, when in-house poaching was at its height along with Somali and Kamba poaching brought up roughly only 8,000, down from the 14,000 counted previously. This figure radically declined further but there were no counts allowed during the corrupt W.C.M.D. regime. The results of the much later counts which were undertaken when Dr. Leakey was appointed as Director of K.W.S. are shown above. The latest 1995 count undertaken by K.W.S. showed 8,500 Elephant left within the Tsavo ecosystem. The population estimated for Kenya as a whole (under Western) is between 18,000 and 20,000. Personally I would put it lower - probably 15,000.

Essays

Helping a Species Go Extinct: The Sumatran Rhino in Borneo

ALAN RABINOWITZ

Wildlife Conservation Society, International Programs, 185th Street and Southern Boulevard, Bronx, NY 10460, U.S.A. email 0007174173@mcimail.com

Abstract: *The Sumatran rhinoceros has been declining in numbers for more than a century, primarily due to hunting and to loss of its habitat as land is converted to other uses. Only in the last quarter century has the international community made concerted efforts to reverse this decline. However, government officials, international funding agencies, and conservation organizations, while paying lip service to the need for strong action, have often taken the path of least resistance in helping this species. Much of the money and effort put toward Sumatran rhino conservation has focused on new technologies or politically expedient strategies that have little to do with the real reasons behind the rhino's decline. The primary means of Sumatran rhino conservation in Indonesia and Malaysia, where viable populations might still exist, is still the capture and attempted breeding of this species—which, until now, has failed. I examined the history of the Sumatran rhino in Borneo and the recent situation in Sabah, where at least two important populations of this species might still survive. Sabah is presented as a case study that is indicative of the plight of the Sumatran rhino throughout its present range.*

Ayudando a una especie a extinguirse: El Rinoceronte de Sumatra en Borneo

Resumen: *Los rinocerontes de Sumatra han venido declinando en número por más de un siglo, debido principalmente a la presión de la caza y a la pérdida de su hábitat a medida que la tierra es modificada para otros usos. Recién durante el último cuarto de siglo, han habido esfuerzos concertados por parte de la comunidad internacional para revertir esta declinación. Sin embargo, agentes del gobierno, agencias de ayuda fianciera internacional y organizaciones conservacionistas, mientras hablan de la necesidad de una acción decisiva, han tomado a menudo el camino del menor esfuerzo para ayudar a esta especie. La mayor parte del dinero y de los esfuerzos invertidos para la conservación del rinoceronte de Sumatra, se ha concentrado en nuevas tecnologías o estrategias políticamente convenientes, que tienen poco que ver con las razones reales detrás de la declinación del rinoceronte. La actividad principal para la conservación del rinoceronte de Sumatra en Indonesia y Malasia, dónde aún parecen existir poblaciones viables, involucra la captura y el intento de cria de esta especie, lo cual hasta la actualidad ha fracasado. Este trabajo examina la historia del rinoceronte de Sumatra en Borneo y los recientes acontecimientos en Sabah, dónde por lo menos dos importantes poblaciones de esta especie parecen aún sobrevivir. Sabah se presenta como un caso de estudio, dónde la situación es indicativa de la difícil situación que atraviesa el rinoceronte de Sumatra a lo largo de su actual área de distribución.*

Introduction

It is no small miracle that rhinos still walk the face of the earth. No other group of animals has been so highly prized for so long yet managed to survive human onslaught. The focus of our obsession with this animal has revolved around the protuberance of hardened hair on the animal's head known as rhino horn. Rhino horn played an important role in medieval Chinese medicine, a role that it continues to play in traditional Chinese practices of today.

The use and trade in rhino horn is recorded from China as early as 2600 B.C. (Nowell et al. 1992), spread-

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ing in later years to Western Asia and the Roman Empire (Hirth & Rockhill 1911; Schafer 1963). But what was once a familiar animal throughout much of China was already considered a rarity "by the time of the ages illuminated by books" (Schafer 1963). By the T'ang Dynasty (600–900 A.D.), large quantities of horn were being imported to China. With the opening of new trade routes, horns were brought to China from northern Somalia, the Arab states (Hirth & Rockhill 1911), and the southeast Asian areas of modern day Vietnam, Java, Sumatra (Mills 1970), the Malay Peninsula (Hirth & Rockhill 1911), Borneo (Mjöberg 1930), Cambodia (Ta-Kuan 1993), Laos (van Wusthof 1871) and Thailand (Gervaise 1688; Bowring 1857; Bock 1884). The near extinction of the Javan and Sumatran rhinos in modern times has been largely attributed to the trade during the T'ang Dynasty (Schafer 1963).

The preparation of rhino horn for particular ailments is often cited from the Divine Peasant's Herbal, written in the first century B.C. (Nowell et al. 1992), and from the Pen Ts'ao Kang Mu, a well-known sixteenth century Chinese medical text. Although there have been modifications and revisions to the Chinese medical pharmacopoeia since those times, modern medical and popular books contain both old and new applications for rhino horn (Read 1982; Yen 1992). Many licensed doctors and pharmacists in Taiwan continue to sell or prescribe rhino horn for their patients (Nowell et al. 1992; Loh & Loh 1994*a*). In mainland China, an increase in the availability of rhino horn and an increased demand by the pharmacies is of growing concern (Loh & Loh 1994*b*).

The rhino family, containing five living species, once ranged widely throughout the more open habitats of Africa and the tropical and subtropical habitats of eastern Asia, including Sumatra, Java, and Borneo. Today rhinos survive only in small, disjunct populations. The Sumatran rhinoceros, the smallest of the rhino species, was once found throughout Assam, Myanmar, Thailand, Indo-China, the Malay peninsula, Sumatra, and Borneo. Today, breeding populations of this species are thought to exist only in Sumatra, the Malay peninsula, and northeast Borneo.

The survival of all five rhino species into the twentieth century can be attributed to a number of factors: legal protection of the species, an increase in the number of protected areas where they survive, the ability for certain rhino species to live in rugged and isolated forested areas, and political and socioeconomic factors that have closed down many of the historic trade routes for rhino horn. The traditional use of rhino horn has not faded with time, however, and with the present Chinese economy growing at an unprecedented rate, these products are becoming ever more affordable to the new consumer class.

During the 1970s, rising prosperity in parts of Asia created a resurgence in demand for rhino parts, and this demand, coupled with escalating prices, encouraged greater hunting of the rhino. Between 1970 and 1987, an estimated 85% of the world's remaining rhino population was lost (Fitzgerald 1989). Many small, fragmented populations were wiped out. As millions of dollars were spent on efforts to reverse this trend, most rhino populations continued to decline.

I examined the case of the Sumatran rhino in Sabah, Malaysian Borneo, where at least two important populations of this species might still survive. First I discuss how, for the last two decades, highly publicized efforts to save the Sumatran rhino have been concerned more with high-profile, technical issues than with the more difficult job of protection and management in the field. Then I will show how the decline of this species in Borneo has been watched and documented for more than a century, while efforts to remedy this situation have fallen terribly short of what is needed.

International and Regional Efforts to Save the Sumatran Rhino

In response to continued concern for the decline of Asian rhino species, the Asian Rhino Specialist Group (ARSG) was created by the Species Survival Commission of the World Conservation Union. The first meeting of this group, convened in Thailand in 1979, emphasized the need for data collection, research and monitoring efforts, protection of rhino habitats, reduction of poaching, and strict control of trade in rhino products. A second meeting of the ARSG, held in Malaysia in 1982, analyzed Asian rhino distribution patterns, estimated numbers of animals, and put forth conservation requirements. By the third meeting in Singapore in 1984, the ARSG decided to launch a program to capture "doomed" Sumatran rhinos for breeding in captivity in Asian, European, and North American zoos. Doomed rhinos were loosely defined as animals whose lives were in immediate danger due to the clearing or conversion of forest for other uses.

The Sumatran Rhino Trust (SRT), an organization spawned from the American Association of Zoological Parks and Aquariums, initially worked out an agreement with Malaysia for the export of animals to the United States with the aim of establishing a captive-breeding program. But protests over the shipping of Malaysian rhinos to western zoos resulted in the dissolution of the proposed agreement and the establishment of a separate Malaysian captive-breeding program. Political differences between the state of Sabah and the national government then led to the creation of two separate Malaysian breeding programs, one in Peninsular Malaysia and one organized by the newly formed Sabah Rhino and Wildlife Conservation Committee, each to be funded and coordinated individually.

Because of the lack of cooperation between the different countries in the region, the fourth and fifth meetings of the Asian Rhino Specialist Group in Indonesia (1986) and Malaysia (1987), respectively, were held to design a comprehensive conservation action plan for all Asian rhino species. The subsequent plan (Khan 1989) concluded that there was still time to reverse the rapid decline of the Sumatran rhino. The creation of captive populations was deemed an important component of any Sumatran rhino conservation plan. While recognizing the importance of *in situ* protection and management of wild populations, this plan clearly emphasized *ex situ* management of captive rhino populations by the ARSG.

In 1987, the SRT signed an agreement with the Indonesian government. It continued to acknowledge that protection and management *in situ* was a top priority for Sumatran rhino conservation, but the agreement stipulated the following:

(1) A donation of US$60,000 per rhino would be paid to the newly established Indonesia Rhino Foundation once rhinos were received in SRT facilities in North America.
(2) In the event of death during transport to the zoos and for a period of one year, an indemnity of US$25,000 per rhino would be paid by SRT to the Indonesia Rhino Foundation.
(3) In the event of death during capture, US$5000 per rhino would be paid by SRT to the Indonesia Rhino Foundation.
(4) All expenses for the survey, capture, and transport of rhinos would be covered by SRT.
(5) SRT would contribute $20,000 per year for the duration of this agreement for improving protection and management for rhinos in National Parks.

In 1993, the SRT was dissolved after five years and a cost of more than US$2.5 million. Virtually none of the money went to improving the protection and management of wild rhinos in existing protected areas. This program, along with the similar efforts in Sabah and Peninsular Malaysia to catch doomed rhinos for breeding, were expensive failures resulting in the capture of 35 rhinos and the deaths of 12 rhinos between 1984 and 1993 (Foose & Zainuddin 1993). The failure was partly a result of the skewed sex ratio of captured animals. Still, as of 1993, the surviving 23 rhinos (14 females, 9 males) were being held in 10 separate areas in Indonesia, Peninsular Malaysia, Sabah, the United Kingdom, and the United States. Other than one facility in Peninsular Malaysia with five rhinos, no more than three rhinos were at any of the other facilities (Foose & Zainuddin 1993). Because adult males and females were never together in the same place for a significant amount of time, there have been no births from captive Sumatran rhinos to date, except for one female who was pregnant when captured.

The Sumatran Rhino in Borneo

Although Borneo was once home to both the Javan and the Sumatran rhino, the Javan rhino was thought to have disappeared due to natural causes about 12,000 years ago (Cranbrook 1987). The Sumatran rhino, described as a distinct subspecies on Borneo (Groves 1965), was still considered relatively common into the early twentieth century (Weedon 1906; Mjöberg 1930). The harvesting and sale of rhino horn, regarded by the government as simply another forest product, was encouraged throughout the early 1900s (Payne 1990*a*).

By the turn of the century, the alarm was already being sounded about the rhino's decline, because hunting for the highly prized horn continued unabated to support a primarily Chinese market (Shelford 1916; Harrisson 1988). By the 1950s it was reported that the Sumatran rhino has been hunted to near extinction in Borneo (Harrisson 1955, 1956), partially due to the hunting skills of the indigenous people (van Strien 1986). This did little to dampen trade however, as countries such as Singapore continued to obtain rhino horn from Borneo (Talbot 1960).

By the 1960s Harrisson (1965) estimated that there were no more than two rhinos left in Sarawak, possibly five in Kalimantan, and 11–13 in Sabah. The Fauna Conservation Ordinance of 1963 in Sabah and the Wild Life Protection Ordinance of 1958 in Sarawak protected rhinos on paper but did little to deter poaching or to ensure the prosecution of offenders. Ten years later there was still virtually nothing known of existing rhino numbers (Rookmaker 1977). In 1982, Davies and Payne (1982) estimated that 15–30 rhinos remained in Sabah and recommended protected status for two areas that still contained numbers of rhinos: Silabukan and Danum Valley. Shortly thereafter a summary of reports compiled by van Strien (1986) indicated that rhinos were virtually gone from Sarawak and most of Kalimantan. At this point, Sabah contained the most important populations of Sumatran rhino outside of Sumatra and Peninsular Malaysia.

Efforts to Protect the Sumatran Rhino in Sabah

Between 1979 and 1987, as Sabah became the focus of attention for Sumatran rhinos in Borneo, some positive steps were taken by the Game Branch of the Sabah Forest Department and subsequently by the newly formed Sabah Wildlife Department to protect the areas where these last populations existed.

Danum Valley was long considered one of the most

pristine lowland forest areas left in Borneo. Free of human habitation and known to contain a rich diversity of wildlife, the area was assumed to be relatively undisturbed because of its ruggedness and inaccessibility (Marsh & Greer 1992). When the presence of rhinos was first suspected in this area in 1976, the Danum Valley was proposed as a national park (Kiew 1976); it was later recommended for protection as a game sanctuary (Davies & Payne 1982). However, the state-run Sabah Foundation, which maintained a long-term timber concession in the area, did not want to relinquish its rights to the land. Instead, in 1982 a 438-km^2 area was designated as "Danum Valley Conservation Area," in which logging would be prohibited but control would remain under the Sabah Foundation. Soon thereafter, buildings for research and visitor accommodations were constructed at the site (Andau 1987). Research conducted at the site in the late 1980s verified that at least one population of rhinos was declining in numbers (Ahmad 1991). By 1989 a traverse through the area recorded only a single set of rhino footprints (Payne 1990*b*).

A second area, the Silabukan Forest Reserve, had been commercially logged since the 1960s, even while it was thought to contain one of the largest remaining concentration of rhinos in Sabah. In the early 1980s, Davies and Payne (1982) verified the presence of a breeding population of Sumatran rhinos in this lowland forest and pushed for protection of the area. Finally, in 1984 1220 km^2 were gazetted by the Sabah government as the Tabin Wildlife Reserve, primarily for the protection of rhinos (Andau 1987). But, selective logging in the reserve continued under license through 1986 (Payne 1986) and "unofficially" through the early 1990s.

Six walk-through surveys in Tabin conducted by the Wildlife Department between 1980 and 1991 indicated a minimum of three to seven rhinos in the area, with steady declines in rhino sign between the 1982 and 1991 surveys (Jomitin 1991). Noticeable shifts in rhino distributions between surveys caused enough alarm for the recommendation of urgent follow-up research to investigate the possibility of declining rhino numbers (Shukor et al. 1989). No such research was ever conducted. The first management plan for the sanctuary (Payne 1986) listed rhino poaching as the most serious threat to the value of Tabin.

In the Asian Rhino Action Plan (Khan 1989), Tabin Wildlife Reserve and Danum Valley were singled out as the two main areas where viable populations were likely still to exist in Sabah. The plan cited estimates of 20 and 10 individuals, respectively, although no definitive surveys had been carried out at either site. Specific activities recommended by the plan for protecting rhinos in Sabah included the following:

(1) strengthening the staffing, funding, and logistical support of the Sabah Wildlife Department to allow for effective protection and research of wild rhino populations;
(2) stricter legislation against rhino poaching;
(3) review of the size and protected status of Danum Valley Conservation Area and Tabin Wildlife Reserve.
(4) Surveys in Danum and Tabin to determine the true status of the rhinos there.
(5) Capture of isolated or threatened rhinos for captive breeding or translocation.

These recommendations, while appropriate, did little more than rephrase similar recommendations made during the first meeting of the Asian Rhino Specialist Group in 1979. The fact that there had been little progress on these issues, 10 years after they had first been discussed, was not mentioned. As of 1992, there were still no reliable estimates of rhino densities for any part of Sabah. Of the five activities recommended by the Action Plan, only the capture of doomed rhinos was carried out with any serious intent.

In September 1992, I organized a rhino survey by the author at the request of the Sabah Foundation and the Sabah Wildlife Department to assess rhino abundance and to standardize a methodology for future rhino surveys and monitoring in the area. The survey was also intended to provide data to the Sabah Wildlife Department for use in upgrading the Greater Danum Valley Conservation Area into a park or wildlife reserve.

Using methodology developed by Borner (1979) and van Strien (1986), two small groups of rhinos, each consisting of two to three individuals, were found through intense surveying of areas totalling 80 km^2 (Rabinowitz 1992). Assuming that other rhinos might be similarly distributed, an estimate of 13–23 rhinos was made for the 1000-km^2 Greater Danum Valley Conservation Area. While this estimate was more than twice that speculated by the Asian Rhino Action Plan (Khan 1989), this survey put to rest the assumption that much of the area was undisturbed and protected by virtue of its ruggedness and isolation.

Only two out of seven teams found recent evidence of rhino presence. Five teams encountered only old rhino sign, along with old hunting camps. This included an area where rhinos had been studied in 1986 (Ahmad 1991) but were now no longer present. Of the two teams that discovered fresh rhino sign, one was located adjacent to the field station and tourist accommodations, an area with regular human activity but no hunting. The second team, which was dropped by helicopter into the most remote section of the study area, encountered an ongoing rhino-poaching expedition. The hunters fled along a well-used trail peppered with old campsites, indicating a history of poaching in the area.

Despite the serious and unexpected nature of these findings, there was no attempt by the Wildlife Depart-

ment to look into the situation. The following year there were still no patrols sent into the area, nor any effort to check or monitor the recent rhino sign that had been detected. Because no immediate action was taken to change the protected status of the Danum Valley despite the survey, the Wildlife Department did not feel compelled to pursue further surveys or management activities in the area.

In Tabin Wildlife Reserve, meanwhile, other activities were underway. As part of an environmental management project funded by the United Nations Development Program in the early 1990s, a wildlife specialist was hired as a consultant to the Sabah Wildlife Department, and a New Zealand consulting firm was contracted to provide a manager for the Tabin Reserve. A second Tabin Management Plan was produced (ANZEC 1992) that did little more than restate the initial 1986 plan (Payne 1986). Illegal logging and poaching were still identified as the major threats to the reserve.

Despite new infrastructure, the assignment of a full-time staff, and the presence of foreign consultants assigned to Tabin Reserve, there were still no systematic patrols or surveying of the area when I visited and trained staff there in 1992. During a 1992 elephant census in Tabin, spoor of only one rhino was encountered in 118 km of transects (Dawson 1992). Later that year, rhino tracks were sighted close to the Tabin ranger station in an area frequented by visitors and researchers but with virtually no hunting pressures. Although the implication of these track locations, which were similar to some of the track locations in the earlier Danum rhino survey, were of potential management importance, there was never any follow-up to the reports. At the time of this writing, there has not been a single reliable estimate of the number of rhinos that might still survive in Tabin, nor has any systematic management been carried out for the species.

With encouragement from the foreign wildlife specialist, the Sabah Wildlife Department shifted most of its emphasis to the capture of doomed Sumatran rhinos—this, despite the fact that organized patrols in the field were not being encouraged, proper surveys were not being carried out, and the foreign consultants themselves were insufficiently trained to handle wild-caught rhinos. Furthermore, the definition of doomed rhinos had now been expanded to include any rhino found or captured outside of an already existing protected area, which did little to encourage new rhino surveys or the protection of remaining forest areas where rhinos still survived.

Of two new rhinos captured since 1992, both in the forests of an area proposed for protection along the Kinabatangan River, one died in captivity under the care of a foreign veterinarian sponsored by the United Nations Development Program and another was radio-collared by the Program's wildlife specialist and put in an enclosure in Tabin. The rhino immediately broke free of the enclosure and went into the forest. Despite the collar, the animal was never followed after its escape. Under the same management, efforts to capture, collar, and relocate additional rhinos were continued.

Discussion

Despite protective legislation and the creation of protected areas where rhinos survive, Sumatran rhino populations continue to decline. Within the last two decades, the international community has stepped in to assist in the protection of this species. During that time, every report, management strategy, and action plan has come to the same conclusion: The decrease in rhino populations is due to poaching carried out primarily to collect the horn and to habitat loss as land is converted to other uses.

The problem, however, has been that once the causes of decline of the Sumatran rhino were recognized, the actions needed to remove or neutralize these causes were never fully implemented. Both Malaysia and Indonesia acceded to the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES), in 1978 and 1979 respectively, which effectively banned the legal trade in rhino products. Yet the legislation needed to fully implement CITES was never enacted in either country (Nichols et al. 1991). Furthermore, even the existing legislation relating to wildlife protection in Malaysia and Indonesia was rarely used to discourage trade in rhino parts or to prosecute offenders.

In Sabah, as elsewhere, the easiest, most palatable, and most visible steps toward Sumatran rhino conservation were taken first. Rhino habitat was better secured through the creation of protected areas that were not controversial and that caused minimal interference with ongoing logging activities and agricultural development plans. Tabin Wildlife Reserve, for example, gained full protection only after most of the valuable timber had been taken out, and Danum Valley remains protected only at the discretion of the Sabah Foundation, the state's largest timber concessionaire. Other management activities, such as antipoaching patrols, education campaigns, and surveys to assess the adequacy of reserve size, were increasingly discussed but never implemented because they were more difficult, time consuming, and sometimes controversial if they conflicted with existing land-use policies.

Emphasis in time, money, and effort has been placed on the capture and breeding of rhinos, despite the fact that such activities alone, even if successful, would not solve the problem nor remove the causal factors of rhino decline in the wild. Although such activities involve known techniques and provide a high-profile out-

let for government spending and international funding, the implication that captive breeding can save the Sumatran rhino makes the failure of *in situ* conservation seem less serious. This, in turn, helps create a self-fulfilling prophecy that wild populations have a low probability of survival.

Caughley (1994) distinguishes two advancing fronts in the field of conservation biology. The first, which he calls the declining-population paradigm, is concerned with the external causes that drive populations toward extinction. Research efforts are aimed at determining why populations are declining and how to neutralize the causes. The second, called the small-population paradigm, deals with the risk of extinction as a consequence of small population size. Here one deals with the genetics and dynamics of a small, finite population. While the former paradigm is mostly empirical and lacks scientific rigor, the latter is mostly theoretical and thus more attractive by virtue of its seemingly "hard" scientific approach.

The small-population paradigm dominated much of the science of conservation biology in the 1980s (see Soulé & Wilcox 1980; Frankel & Soulé 1981; Soulé 1986, 1987), but it is almost completely removed from the real world (Caughley 1994). The proponents of this approach, using terms such as extinction vortices, minimum viable populations, population and habitat viability analyses, inbreeding depression, and metapopulation analysis, do their field work in the laboratory, in captive-holding facilities, and at the computer. They acknowledge the need for *in situ* protection of wild populations, but their results almost always point to the same conclusion: declining populations in the wild will eventually become extinct, and thus captive breeding is needed to save the species.

Using decision analysis, Maguire et al. (1987) predicted the probability of Sumatran rhino extinction if certain actions were or were not taken by Indonesia and Malaysia. The choice of possible actions included increased control on poaching, new and/or expanded protected areas, fencing of existing protected areas, translocation, and captive breeding. Not surprisingly, the capture and breeding of wild rhinos were viewed as the most promising means of saving the species.

But as with other attempts at linking theory with management applications, the actual attempts to establish a captive Sumatran rhino herd that would help repopulate the wild herd fell far short of expectations. Not only was the sex ratio of captured Sumatran rhinos highly skewed, but those in captivity proved extremely difficult to breed. Furthermore, the international and regional captive-breeding programs were subjected to the same political and economic realities that caused Maguire et al. (1987) to so easily discard other conservation actions.

While some of the blame for the decline of the Sumatran rhino must be placed on the Indonesian and Malaysian governments, the rest of it falls squarely in the lap of international funding and conservation organizations. The international community, with its funding and expertise, has played a major role in directing the course of rhino conservation over the last quarter century. Unfortunately, it has tried to avoid dirtying its hands with controversial and difficult issues such as poaching, protected-area staff training and wages, and the establishment of new reserves in areas where local communities, government agencies, or entrepreneurs wish to alter or use the land for other purposes. Foreign advisers and nongovernment conservation organizations have all too often avoided such issues because of the risk of becoming an unwelcomed guest.

While political, cultural, and socioeconomic issues in Indonesia and Malaysia continue to interfere with Sumatran rhino protection, these difficulties have never been insurmountable. The rhino simply has not been considered important enough for governments and large funding agencies to tackle these realities. Only when a firm commitment is made to save the Sumatran rhino will the species stand a chance of survival. Regrettably, our years of accumulated failures and avoidance of issues have not moved us closer to this kind of a commitment. The 1993 report of the Asian Rhino Specialist Group to the United Nations Environment Program Conference for Rhinoceros Range States, Consumer States, and Donors, estimated a new three-year cost for rhino conservation in Indonesia and Malaysia at approximately US$14 million. As part of this cost, a two-million-dollar program by the Global Environmental Facility is already underway to establish yet another conservation strategy for southeast Asian rhinos in Indonesia and Malaysia. This "new" strategy, based primarily on viable population theory, entails the following components: wild population protection, sanctuary management, captive propagation, and gene-bank technologies. The strategy ignores the fact that the only means likely to save the rhino in the wild involves intensive, on-the-ground protection and management activities.

Meanwhile, the decline of the Sumatran rhino continues. In August 1994, 12 more Sumatran rhino horns were confiscated in Taiwan that had been smuggled on a fishing boat from Malaysia (The Jakarta Post, August 9, 1994). In Sabah, the Wildlife Department continues to capture doomed rhinos from areas that have not been adequately surveyed nor even considered for protected status. After all these years, do we know how many Sumatran rhinos we are dealing with? No, but soon we might have a nice round figure.

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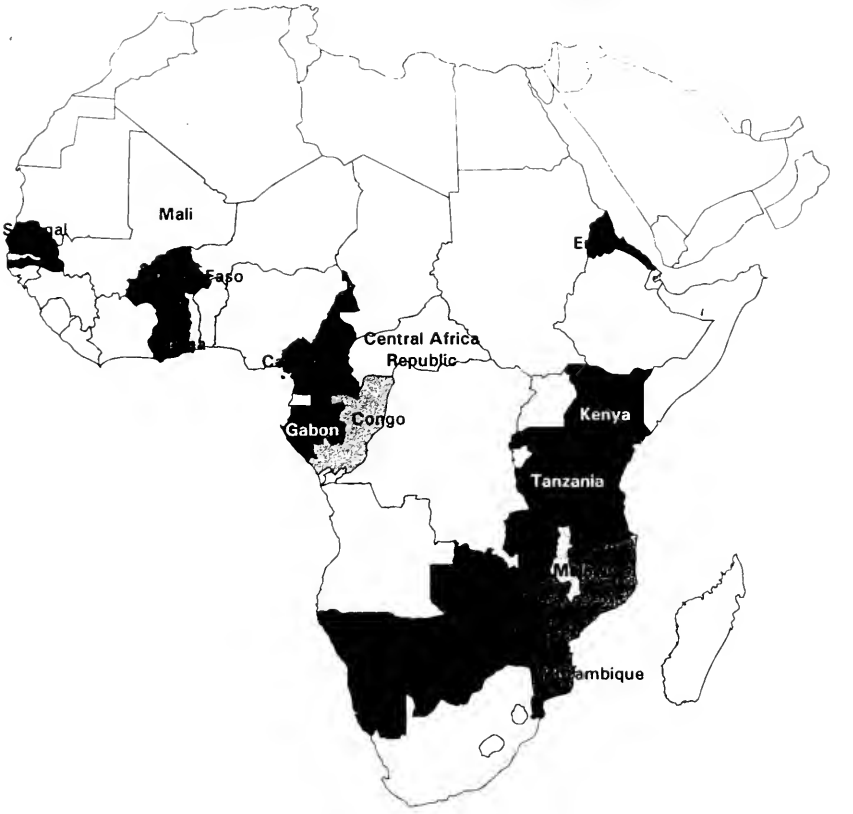
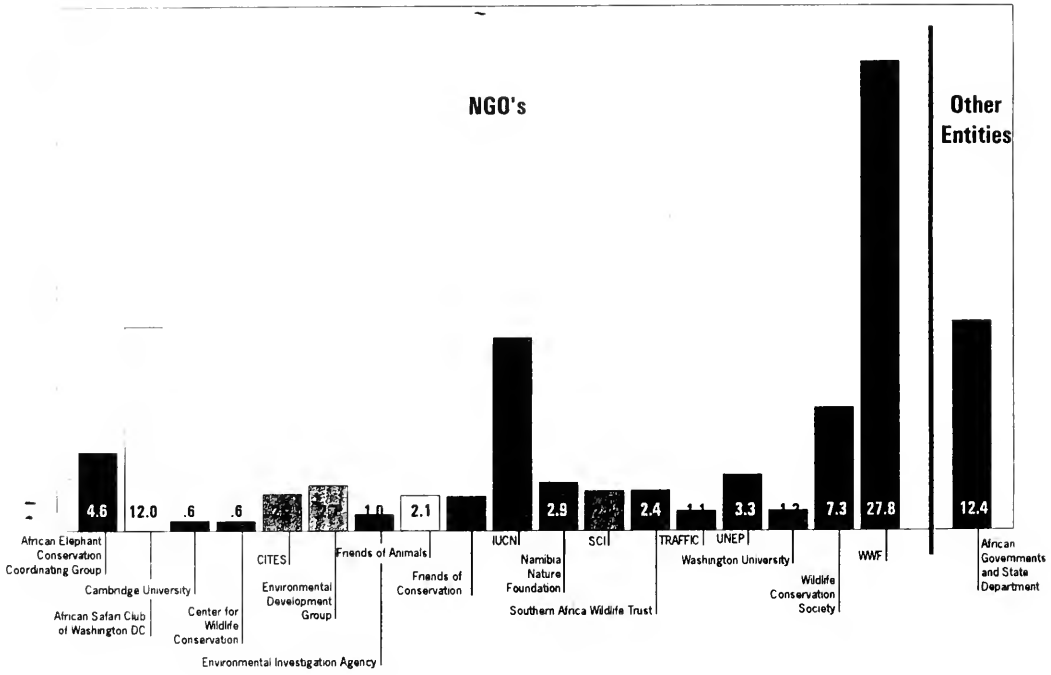
AECA Grant Projects in Range Countries



African Elephant Conservation Act*
Distribution of Grants



*A Percentage of total funds allocated FY90-FY95

AFRICAN ELEPHANT CONSERVATION ACT GRANT PROGRAM

The African Elephant Conservation Act (AECA) was enacted in October, 1988 in response to the then alarming decline of African elephants since the mid-1970's. This Act provides for two actions: (1) the review of African elephant conservation programs in each ivory producing country and the establishment of a moratorium on ivory from any country that fails to maintain an adequate elephant conservation program and (2) the development of a grant program to provide financial assistance to support protection, conservation, and management of African elephants. In accordance with the first provision, the President, in June, 1989, established a moratorium on all ivory imports. While it was determined that several countries were able to maintain adequate conservation programs internally, there was no effective mechanism to control international trade in ivory products. That moratorium remains in effect.

A total not to exceed $5 million for each of fiscal years 1989, 1990, 1991, 1992 and 1993 was authorized to be appropriated to an African Elephant Conservation Fund established for the grant program. The Congress appropriated $350,000 in fiscal year 1990, $765,999 in fiscal year 1991, $957,000 in fiscal year 1992, and $1,159,000 in fiscal year 1993. The AECA was reauthorized in 1992 for 7 years. A total of $1,137,000 was appropriated by Congress for fiscal year 1994, and a total of $1,166,767 was appropriated for fiscal year 1995. Over 300 proposals exceeding $240 million have been received under the program. Most proposals total cost far exceed the funds available annually, and as such matching donor cooperators and reduced scopes of work are developed for highest priority project proposals based on program criteria. To date, 62 grants, involving 48 projects, in 17 African countries have been funded with the combined total of $5,102,881 obligated for the program. These projects have been administered in cooperation with a total of 3 African governments (Burkina Faso, Malawi, and Tanzania) and a total of 19 non-government organizations. In addition, $7,092,479.00 has been generated through matching funds to augment the support made available through the grant program.

CRITERIA FOR FUNDING GRANT PROJECTS

The Act established specific criteria for project proposals and project review and approval. Additionally the Conference Report, adopted with the passage of the Act, identified priority actions for funding. The Fish and Wildlife Service uses these criteria and direction in administering the grant program. Projects are evaluated for funding based on the following criteria:

1. **PROJECTS WITH AFRICAN GOVERNMENT AGENCIES.** The Act encourages African government agencies responsible for African elephant conservation to submit proposals and, requires that evidence of support by governmental entities of countries where the project is to be conducted accompany any project proposal submitted by nongovernmental organizations or the private sector.

The Service works through the Department of State to coordinate local government participation. African countries that demonstrate a desire to enhance elephant conservation programs will receive priority for funding. Also, projects where two or more African countries work cooperatively on elephant conservation programs will receive priority for funding. National government priorities are considered first priority for funding if several projects are received for a country.

2. **PROJECTS DIRECTED AT ANTI-POACHING.** The Conference Report identified assistance that would be used in efforts to halt the poaching of elephants as that most urgently needed by the African countries and directed that a high priority be given to projects that would assist such efforts. The majority of project proposals received to date indicate that, even with the recent ban on ivory importations, local government priorities are for anti-poaching assistance. Such projects receive first priority for funding.

3. **PROJECTS THAT ADDRESS COUNTRY ELEPHANT CONSERVATION PLANS.** The Act encourages the development of biologically sound conservation programs and establishes criteria that give priority to projects that develop sound scientific information necessary to insure healthy, sustainable African elephant populations. An international coordination group has assisted range countries in developing country conservation plans, and other countries have produced theirs independently. The goal of this process is to assist African governments by providing the means to maintain ecologically viable elephant populations. These plans identify country specific actions required to maintain elephant populations at sustainable levels. Projects that support implementation of country plans receive priority for funding.

4. **HIGHEST PRIORITY PROJECTS IN EACH REGION.** The Act recognizes the importance of the elephant in maintaining the biological diversity of Africa and encourages all countries within the range of the African elephant to support its conservation. The Act recognizes that some African countries have effective elephant conservation programs, but that many others do not have sufficient resources to properly manage, conserve and protect their elephant populations. Priority will be given to funding projects in each of the four geographic regions in Africa to restore and maintain healthy elephant populations, in balance with local ecological conditions, over the widest possible extent of their historic range.

5. **COOPERATIVE PROJECTS WITH MATCHING FUNDS.** The Act provides for the acceptance and use of donations to provide assistance to projects funded under the grant program. Priority will be given to cooperative projects that provide for matching funds from other sources and/or provide interim support for projects with future funding secured.

FOR FURTHER INFORMATION CONTACT: Biologist Mark Phillips, U.S. Fish and Wildlife Service, Office of Management Authority, 4401 N. Fairfax Drive Room 420C, Arlington, VA 22203, telephone 703/358-2104, extension 5450.

PROJECTS FUNDED THROUGH 6/20/96

(RANGE-WIDE PROJECTS)

AECCG DATABASE. Funding was provided to the African Elephant Conservation Coordinating Group to support development and maintenance of the African Elephant Project Database, to initiate the development of specific Elephant Conservation Plans for each range state, and to support regional meetings on elephant conservation in West and Central Africa. (FY92)

AESG ACTIVITIES. Funding was provided to the International Union for the Conservation of Nature to assist the African Elephant Specialist Group in its efforts to develop the most current data base for elephant conservation. (FY91, FY93, and FY96)

AWARDS PROGRAM. Funding was provided to the Southern Africa Wildlife Trust to support a meritorious service awards program to recognize wildlife rangers that have demonstrated bravery beyond the call of duty in African elephant anti-poaching enforcement operations. (FY93, FY94 and FY95)

CITES LAW ENFORCEMENT SEMINAR. Funding was provided to the Convention on International Trade in Endangered Species Secretariat to assist in the development of a law enforcement seminar dealing specifically with African elephant anti-poaching and law enforcement issues. The seminar would develop a model program for use throughout Africa. (FY92)

CITES ASSISTANCE TO COP 9. Funding was provided to the Convention on International Trade in Endangered Species Secretariat for African elephant related issues relative to the 9TH Meeting of the Conference of the Parties. (FY95)

EDG ACTIVITIES. Two projects were funded in cooperation with the Environment & Development Group. The first, to coordinate a meeting on the African elephant in Botswana, and the second, to make an assessment of investments in elephant conservation. (FY94, FY95)

NAIROBI CONFERENCE. In corporation with the European Economic Community and the Government of France, funding was provided to the United Nations Environmental Program to hold an international meeting in Nairobi, Kenya on elephant conservation focusing on the coordinated development of priority projects for elephant conservation and coordination of donor country bi-lateral project funding. (FY92)

TRAFFIC. Funding was provided to the World Wildlife Fund for Nature for two projects. The first assisted in the funding of African elephant related activites associated with the establishment of a TRAFFIC office for EAST/SOUTHERN Africa, and the second project provided funding to assist in the development of a data base on current ivory stockpiles. (FY93, FY94 and FY95)

UNEP. Funding was provided to the United Nations Environmemt Programme for the development of the Lusaka Agreement on Co-operative Law Enforcement Operations directed at illegal trade in wild fauna and flora, with a focus on elephant ivory. (FY94)

WASHINGTON UNIVERSITY. Funding was provided to conduct genetic research to explore the possibility of the existence of two separate species of African elephant and the management implications of such a possiblility. (FY95)

WWF. Funding was provided to World Wide Fund for Nature to provide technical assistance on elephant conservation projects throughout the African elephant range states. (FY95)

(COUNTRY SPECIFIC PROJECTS)

BOTSWANA. Funding was provided in cooperation with the World Wildlife Fund for Nature and the Department of Wildlife and National Parks to assist in the development and implementation of an elephant conservation plan for Chobe National Park. (FY91)

BURKINA FASO. Funding was provided to the Director of National Parks and Reserves for elephant anti-poaching and management assistance. (FY90)

CAMEROON. Three projects were funded. One, in cooperation with the American Embassy, provided equipment to the Department of Wildlife and National Parks for elephant anti-poaching operations in Waza National Park. The second in cooperation with the World Wildlife Fund for Nature provided funding to assess the impacts of crop raiding elephants, and the third, also in cooperation with the World Wide Fund for Nature provided funding for the monitoring of elephant populations. (FY91, FY93 and FY95)

CENTRAL AFRICAN REPUBLIC. Four projects were funded. Two were in cooperation with the World Wildlife Fund, to provide elephant anti-poaching equipment and assistance in Dzanga-Sangha Reserve, and elephant surveys in the Bangassou forests. A third, with the U.S. Embassy, was to facilitate outreach to rural communities on elephant conservation. The fourth project was in cooperation with the Wildlife Conservation Society for elephant research. (FY90, FY93, and FY94)

CONGO. Funding was provided in cooporation with Wildlife Conservation Society to provide anti-poaching equipment and assistance in the Congo. (FY93 and FY96)

ERITREA. Funding was provided for the protection of a remnant population of elephants recently discovered along the Eritrea/Ethiopia border in cooperation with the State Department. (FY96)

GABON. Funding was provided in cooperation with the World Wildlife Fund and the Department of Wildlife and Hunting for anti-poaching assistance

in the Petit Loango Faunal Reserve, and the Gamba Protected Area. (FY90, and FY93)

GHANA. Funding was provided in cooperation with the Wildlife Conservation Society to train Ghanian wildlife officers in elephant biology and ecology. (FY95)

KENYA. Two projects were funded. The first provided funding for the compilation of a comprehensive reference library on the African elephant, in cooperation with UNEP. The second provided funding for improving techniques in African elephant applied research and monitoring, in cooperation with the World Wide Fund for Nature. (FY94 and FY96)

MALAWI. Three projects were funded in Malawi with the Department of National Parks, Wildlife and Tourism. One project conducted a status survey of elephants in Malawi's protected areas, a second provided emergency assistance for water due to the drought conditions, and a third provided assistance to the CITES Standing Committee. (FY90, FY92, and FY93)

MALI. One project was funded in cooperation with the State Department to manage the elephants in the Gourma region. (FY95)

MOZAMBIQUE. Funding was provided in cooperation with the Environmental Investigation Agency and the World Bank for the rehabilitation of the Maputo Elephant Reserve. (FY95)

NAMIBIA. Two projects were funded. One was in cooperation with the World Wildlife Fund, to respond to an emergency disease outbreak in the desert elephant due to the drought. The second was in cooperation with the Namibia Nature Foundation to coordinate transborder aerial elephant status surveys. (FY 92 and FY93)

SENEGAL. A cooperative project was funded with Senegal National Parks Service and the Friends of Animals to provide anti-poaching assistance to Niokolo-Koba National Park, which contains the western most remaining elephant population on the continent. (FY93 and FY95)

TANZANIA. Six projects were funded in Tanzania in cooperation with the Tanzania Department of Wildlife. One assisted the Department in the administration of the Eastern Africa Regional Meeting on elephant management and conservation. The second provided anti-poaching equipment and assistance to the Department of Wildlife in cooperation with the African Safari Club of Washington, D.C.. The third provided excess U.S. military vehicles to the Department for elephant anti-poaching operations. The fourth was a cooperative project with the Friends of Conservation to provide security assistance and to conduct status surveys of elephants in the Serengeti Ecosystem. The fifth was a project with Safari Club International supporting a game scout quota monitoring program. The sixth was a project with the Center for Wildlife Conservation assessing long term impacts of elephant poaching. (FY91, FY92, FY93, and FY95)

ZAMBIA. Two projects were funded in Zambia. One was a cooperative project with the World Wildlife Fund and the Zambia Anti-Corruption Commission to establish a Species Protection Unit to assist in elephant anti-poaching efforts. The second was a cooperative project with the African Safari Club of Washington, D.C. and the Minister of Tourism and Natural Resources to provide elephant anti-poaching equipment and assistance to their Remote Game Scout Program. (FY90, FY91, and FY95)

ZIMBABWE. Five projects were funded in Zimbabwe. Two were in cooperation with the African Safari Club of Washington, D.C. and the Department of National Parks and Wildlife, for elephant anti-poaching equipment and assistance in the Lower Zambezi Valley and, for an intelligence liason support project. The third, in cooperation with the American Embassy provided emergency assistance to the Department to assist in the development of techniques for translocation of elephants. The fourth was a project with Safari Club International to introduce a comprehensive system of quota setting and monitoring in rural communities. The fifth was a project with the University of Cambridge to study deterrence of crop-raiding elephants. (FY91, FY92, and FY95)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240

ADDRESS ONLY THE DIRECTOR
FISH AND WILDLIFE SERVICE

In Reply Refer To:
FWS/AIA/CCU96-00413

Honorable Gerry Studds
House of Representatives
Washington, D.C. 20515

JUL 18 1996

Dear Mr. Studds:

Thank you for your letter of June 25, 1996, requesting answers to several follow up questions from the Subcommittee's hearing related to the African Elephant Conservation Act and the Rhino and Tiger Conservation Act.

Attached are the questions which you forwarded to me and their response. If you have additional questions please contact me at 208-6393.

Thank you for your continuing interest in the conservation of threatened and endangered species. Please let me know if we can be of further assistance.

With best regards,

Sincerely,

Marshall P. Jones
Assistant Director, International Affairs

Attachment

FOLLOW UP QUESTIONS
AFRICAN ELEPHANT AND RHINO/TIGER HEARING

1) Ivory Trade: Is there any reliable way to mark "legal" ivory in a manner that could not be duplicated easily or in a manner that could be reliably differentiated from poached ivory?

Answer: Research is underway in two different areas to be able to reliably identify sources of ivory. One involves the analysis of mineral content in a sample of ivory. This technique has been able to identify animals from different habitat types. However, similar habitats are found in many countries within the current range of the African elephant. This technique is not sufficiently reliable at the present time to determine the country source of ivory. The second technique uses DNA analysis and can be much more specific in its identification, however, this technique requires a sample of tissue other than ivory for the identification. Such a technique would not work for parts of tusks, pieces of raw ivory, or tusks that contain no residual tissue. As an alternative to a marking scheme, other types of controls have been proposed that might include point source shipments, and a limited window for legal shipments. Such alternatives have not been evaluated.

2) ESA/trophy trade permits: Do you issue permits to allow trophy trade under the Endangered Species Act? What criteria are necessary to issue those permits?

Answer: The Service fully supports sport-hunting in the context of overall programs for the conservation of species and recognizes the economic benefits that can accrue to other countries from well-managed programs. The Service issues approximately 1,000 import permits for sport-hunted trophies annually. For certain species listed as threatened under the ESA, the Service has been able to determine that the taking of such species, in controlled circumstances and where it can be demonstrated that such take provides benefits, usually in the form of revenues for conservation programs, enhances the conservation of the species. Examples include Argali sheep from two Asia countries and African elephants from eight countries. For other countries that also allow sport-hunting, the Service has not been able to find that adequate controls were in place or that revenues generated provided tangible benefits to the conservation of the species.

Concerning species listed as endangered under the ESA, the Service has generally been unable to find that the taking of such species in sport hunting programs would enhance their survival and contribute to their conservation and recovery. The high overall threats to the continued existence of endangered species generally preclude the ability to make the necessary findings that would permit imports resulting from the killing of such species.

However, the Service is currently reviewing a program for the conservation of endangered cheetahs in Namibia that if fully implemented, could provide the basis for enhancing the survival of the species. That program includes sport-hunting as a component of Namibia's conservation strategy for the species. Although the initial applications for cheetah trophy import permits have recently been denied, the applicants now have appeal rights. There are also indications that additional information may be received from Namibia regarding the implementation of a management program there which will need to be taken into account during the appeal process.

3) Elephant Trophy Hunting: It is often claimed that trophy hunting is not detrimental to the survival of elephants, since such a low percentage of the populations is taken for this purpose. However, research has demonstrated that female elephants prefer to mate with males over the age of 35. As a result of poaching, there are, in general, very few of these males left. In addition, trophy hunters also prefer these older males who have large tusks. Has the effect on elephant populations of trophy hunting of these older males ever been taken into account in Management programs? Are there any reliable estimates of how many of these older males exist? How often are censuses take, and what methodology is used.

Answer: Current understanding of African elephant biology indicates that elephants are long lived animals with highly developed social organization. Age at sexual maturity for both sexes is early teens. However, their social structure results in significant competition among males with the more dominant males involved in breeding. There is also evidence to suggest that even in those populations that have not been significantly reduced by poaching, and have remained stable and increasing overtime, the overall tusk size in males has decreased over that reported earlier in the century.
Since tusk size correlates to age, younger bulls are breeding successfully.

While it appears true that females tend to breed with the most dominant males available, the overall decrease in tusk size does not appear to appreciably affect the sustainability of African elephant populations that are otherwise well managed. While sex and age criteria are taken into account, population surveys tend to be larger in scale to determine overall heath and vitality of the various elephant populations in the country. Sport hunting quotas are generally very small as compared to overall elephant population size for the country. However, it is important that management programs that include sport-hunting ensure that harvest from various populations within the country is regulated at that level.

Testimony of the Environmental Investigation Agency on
The African Elephant Conservation Act of 1988

and

The Rhinoceros and Tiger Conservation Act of 1994

to the

Subcommittee on Fisheries, Wildlife and Oceans

U.S. House of Representatives

The African Elephant Conservation Act of 1988

As an international, environmental organization which has been working on the African Elephant issue for the past ten years, both in Africa and in international fora such as the Convention on International Trade in Endangered Species (CITES), EIA fully supports the U.S. African Elephant Conservation Act (AECA).

The Act was a major factor in closing down the illegal ivory trade in mid-1989 and in heralding the decision taken by CITES later that year to ban all international trade in elephant products by placing the species on Appendix I of the Convention. This decision, made under the Act, to ban ivory imports unilaterally played a significant role in galvanizing other ivory importing nations, such as Japan, to ban trade well in advance of the CITES decision.

There is no doubt that funding has been one of the primary needs of African countries struggling to enforce both international and domestic wildlife law. The African Elephant Conservation Act has fulfilled a significant part of that need and it is imperative that this funding commitment is at least held steady, if not increased.

As many governments and institutions are aware, elephant poaching and illegal ivory trade have slowed considerably in many parts of Africa since the ban. In some areas, poaching has been eliminated altogether. For this reason, the vast majority of African governments support the continuation of the Appendix I listing.

Aside from the reduction in poaching levels, the listing has been instrumental in helping elephant conservation in purely economic terms. Some African governments report that they have been able to divert funds from anti-poaching into other, forward-looking elephant conservation programs.

This does not mean that there is no need for anti-poaching efforts, but the Appendix I listing has given not just the elephants but also their African protectors

time to consider the long-term future of the species. It is a truism to say that if elephants are to be long-term survivors in the wild, local communities should be able to benefit from their presence. There are those who argue that the answer to this is resumed ivory trade, but it is unlikely that the lessons learned from the mass slaughter of the 1970s and 1980s will be forgotten so quickly. What purported to be 'sustainable use' of elephants in the form of international trade turned out to be the principal instrument of the species' demise. By 1988, over 90% of all ivory in international trade was from poached elephants. The international community, following Tanzania's lead, realized that it was simply unable to control worldwide trade in a highly-valued commodity such as ivory and it was banned.

Six years later, despite strenuous lobbying by a small but vocal minority, the great majority of African elephant range states continue to support the Appendix I listing. It is imperative that the wishes of these countries be respected and that the listing remain in place.

One of the benefits of the international re-think on ivory has been an upsurge in calls for the economic benefits of tourism to be channelled to local communities. It is an unfortunate fact that in Africa, as well as in many other parts of the developing world, the tourism industry remains largely under the control of affluent, often foreign, operators. Some of these operators have the foresight to ensure that communities living in wildlife areas do benefit in a significant - and dignified - way from the presence of tourists but, sadly, many do not.

Yet there are superb examples in many parts of the continent of locally-managed, non-consumptive projects which are successfully reducing negative attitudes towards wildlife while substantially improving the living standards of rural communities. Observers have spoken of the communal effort which goes into these projects, as opposed to the divisive and - in countries with a shoot-to-kill policy - dangerous pastime of elephant poaching.

A major benefit of a non-consumptive approach is that it reduces the understandable temptation to poach and smuggle, activities which are ***encouraged*** by putting a price on the head of a dead elephant. It is incomprehensible that some African governments are seeking increased funding for anti-poaching activities while simultaneously lobbying for a revival of the ivory market which fuelled the poaching of the 1970s and 1980s.

Since EIA began its project to assist in the rehabilitation of the Maputo Elephant Reserve, Mozambique, a project which is partially funded under the Act, local conservationists have reported increased sightings of elephant. This is taken to signify that, as poaching has decreased, so the animals have begun to lose their fear of humans and are more easily seen. The eventual aim of the project is to help to put in place the infrastructure necessary for eco-tourism. Naturally, elephants will play a major role in attracting tourists.

It is our view that it would do well to give priority to funding non-consumptive, community-based tourism projects under the AECA. Such a policy is being adopted by many far-sighted governments in Africa and funding of such projects would fit well with current thinking across the continent.

The Appendix I listing has provided a breathing space for elephants and for policy-makers alike. The next step is clearly to implement long-term strategies for the survival of the species. Benign 'use' of elephants is the least damaging and potentially the most lucrative way of deriving benefits from the African elephant. We therefore urge the Congress and the Administration to substantially increase funding for the AECA fund, and particularly for existing community-based elephant tourism projects and to initiate new ones, in consultation with the appropriate African government departments.

The Rhinoceros and Tiger Conservation Act of 1994

The much-needed U.S. Rhinoceros and Tiger Conservation Act was an urgent response to the alarming situation faced by all extant species of rhinoceros and tiger.

The problem common to both of these species is that of consumption of their parts and derivatives for Traditional Chinese Medicine (TCM). While, in the case of the tiger, there are also problems with habitat loss, the poaching of this species is clearly the primary cause of its rapid disappearance in the wild. The well-documented trade in tiger bones, teeth, claws and other parts is testament to this fact. In the case of the rhino, the situation is even more clear.

The failure of the Appendix I listing for these species is often cited as 'proof' that bans do not work or, worse still, that CITES itself does not work. This is a highly simplistic view of the way in which the Convention is supposed to be implemented.

Apart from voting to place a species on Appendix I of the Convention, member nations have the responsibility to enact parallel domestic legislation within a reasonable period after the listing. Both the rhino and the tiger were unfortunate enough to be consumed in nations which, bluntly speaking, had no interest in implementing or enforcing CITES. The Peoples' Republic of China and Hong kong were two members of CITES which flagrantly failed to implement CITES legislation. Taiwan, not a Party to CITES, had nevertheless agreed to implement domestic legislation in line with Convention.

It was not until 1992 that Taiwan felt the pressure of the international community in terms of its total neglect of CITES legislation on numerous endangered species, in particular the rhinoceros. Highly publicized consumer campaigns, political pressure and, most of all, the certification of Taiwan under the U.S. Pelly Amendment resulted in rapid changes to Taiwanese legislation and an increased

effort to enforce it. Non-government organizations in Taiwan joined in the chorus of criticism and, since then, there have been major seizures of endangered species made by government enforcement officials. Recently, the Premier made a gift of six rhinoceros to the King of Swaziland, the underlying message being that Taiwan was responsible for the almost total extinction of the rhino in that country.

Taiwan is a classic example of what can be achieved with a political will to conserve wildlife species. The U.S. played a major role in creating that political will.

The pattern of east Asian consumption of endangered wildlife follows the pattern of economic growth in that part of the world. If, as the Chinese economy grows, its per capita consumption of rhino horn mirrors that of Taiwan, it will require seven thousand rhinos per year to fulfill the demand in China alone. This does not include the consumers of Hong Kong, Korea nor the many Asian communities in other nations around the world.

There is only one way to protect rhinos, tigers and other rapidly diminishing species, and that is to stop consumption. Captive breeding simply cannot hope to fulfill demand, and a legal trade in 'farmed' products of rhinos and tigers will simply provide a cover for the illegal trade which, for the trader, is a much cheaper and easier option.

We hope that Congress will seek significantly greater appropriations for funds under the U.S. Rhinoceros and Tiger Conservation Act. These funds would provide the best possible protection for both rhinos and tigers if it were to concentrate a significant portion of its funding on consumer education projects in east Asia. The region has opened up to the international press, satellite television, U.S. radio and television stations and, therefore, is accessible to positive attitudes towards wildlife protection. Now would be the perfect time for funding to be used for media campaigns to change public opinion and end consumption of these products. In addition, pressure must be maintained on the governments of consumer nations to enforce ever more strongly the international and domestic legislation designed to protect rhinoceros and tiger populations in the wild.

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