

104
**AFRICA'S ECOLOGICAL FUTURE: NATURAL
BALANCE OR ENVIRONMENTAL DISRUPTION?**

Y 4. IN 8/16:AF 8/9

Africa's Ecological Future: Natural...

HEARING
BEFORE THE
SUBCOMMITTEE ON AFRICA
OF THE
COMMITTEE ON
INTERNATIONAL RELATIONS
HOUSE OF REPRESENTATIVES
ONE HUNDRED FOURTH CONGRESS

FIRST SESSION

JUNE 21, 1995

Printed for the use of the Committee on International Relations



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CONTENTS

WITNESSES

	Page
Hon. Robert M. Pringle, Director, Office of Ecology and Terrestrial Conservation, Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State	5
Hon. Ron Marlenee, former Member of Congress and director, Legislative Affairs, Safari Club International	14
Henri Nsanjama, vice president, Africa/Madagascar Programs, World Wildlife Fund	16

APPENDIX

Prepared statements:	
Hon. Alcee Hastings	21
Hon. Robert M. Pringle	22
Hon. Ron Marlenee	27
Mr. Henri Nsanjama	33

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

Project description entitled: "Energy Conservation in Kenya: Experiences of the Kenya Renewable Energy Development Project"	38
Ms. Elizabeth Rihoy, Washington Director, Africa Resources Trust, prepared statement	49

AFRICA'S ECOLOGICAL FUTURE: NATURAL BALANCE OR ENVIRONMENTAL DISRUPTION

WEDNESDAY, JUNE 21, 1995

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERNATIONAL RELATIONS,
SUBCOMMITTEE ON AFRICA,
Washington, DC.

The subcommittee met, pursuant to call, at 10 a.m. in room 2255, Rayburn House Office Building, Hon. Ileana A. Ros-Lehtinen (chair of the subcommittee) presiding.

Ms. ROS-LEHTINEN. The subcommittee will now come to order. Thanks to all of you for being here with us this morning. I am joined by Vic Frazer from the Virgin Islands and I am sure that some members will be straggling along. There are all kinds of meetings and markups going on today, as well as the session that is already under way.

When I was first elected chair of this subcommittee, one of the many issues that I felt needed to be brought to the forefront were those related to the state of Africa's ecology. As a Floridian, environmental issues have always been of great concern to me, as the State must deal with the question of how to protect our coral reefs, how to safeguard the Everglades, and keep such integral parts of our natural history as the manatee and the Florida deer from extinction.

Globally, we are faced with an even more critical situation. The United States is increasingly concerned about the dangers of global climate warming, deforestation, and the destruction of wildlife, not only as it affects the ecological well-being of the United States, but also how it manifests itself in other regions of the world.

Other issues which U.S. policymakers are focusing on are the environmental causes of famine, and the recognition that the economic development needs of developing countries may be undermined by the degradation of their environment.

These issues know no boundaries. The countries of the world are now part of a truly global community with the economies and the people becoming increasingly interdependent. In this international family of nations, the ecological degradation of one habitat, in turn, affects the world's ecological balance.

As a result, while the United States undertakes initiatives to resolve its own environmental hazards, it must also look to developments in other regions to prevent a further escalation of these problems.

One region which plays a key role in discussions about the future of the global environment and where the natural as well as human

issues come together is in the continent of Africa. For this reason, we are holding this hearing today. The African continent harbors some of the last remaining areas of tropical forests. Specifically, it contains 19 percent of the world's tropical moist forests with 10 percent in Zaire and 9 percent in the rest of Africa. Studies show that the total area covered in forests continent-wide has been reduced by 23 percent between 1950 and 1983, and that West Africa has lost 60 percent of its original rain forests.

The causes vary according to the region, with some being lost to clearing for agricultural use, and others for fuel wood, while yet others to land clearing.

Regardless of how you look at it, this could have grave consequences—these being soil erosion, the destruction of thousands of plant and animal species, and atmospheric changes.

First, let me touch upon the issue of soil erosion. Without the protection afforded by vegetation, soils are left vulnerable to extreme temperatures, alternating droughts, and torrential rains. The soil becomes depleted of its nutrients, hardens, and is no longer agriculturally productive. For the African continent, this could destroy its ability to feed and to employ its growing population.

The destruction of biological diversity is another problem area. Not only do some African countries possess concentrations of species that cannot be found anywhere else in the world, but their habitats provide 25 to 75 percent of the protein consumed on the continent.

Furthermore, 90 percent of the energy generated throughout the region is derived from the tropical moist forests. Even more alarming is the fact that the dangers posed by deforestation, soil erosion, and the destruction of biodiversity may be magnified even further in the African continent.

In some ways, ozone depletion may affect the countries in Africa similarly to the rest of the world. However, the effects of global warming could potentially combine with a number of other environmental problems present in Africa, which could totally devastate the region.

And let us not forget some emerging hazards, such as toxic wastes, which will soon be taking their toll on Africa's environment as they have on the United States and in other countries.

In light of this reality, why is the protection of the environment such a difficult task, and what are the dynamics at play which hamper the implementation of conservation programs in the African continent?

Analysts say that the high population growth, poverty, poor government policies, civil wars, and conflicting business interests with environmental concerns are obstacles not easily overcome.

They also point out that the majority of African governments lack funds and are faced with an overwhelming foreign debt. These governments are then asked to choose between development and environmental concerns. When faced with this decision, many feel that conservation is a luxury that they cannot afford.

As a result, many believe that Africa's ecological future is grim. Others, however, have a more optimistic outlook on these environmental threats. They report that African countries have realized

the potential future implications of avoiding these issues, and have chosen to act and keep the problem from escalating any further.

Various techniques have been developed, many by African farmers, to claim degraded soil and increase crop yields. Another hopeful sign is that many of the wildlife and natural park services in the continent are training others in the importance of protecting biodiversity, and are designing programs committed to this end.

It is no longer just the international community attempting to address these issues. It is the people of the African continent who are gradually becoming active participants in protecting their future by safeguarding their ecological past and present.

To reiterate, African countries working to protect their environment are in fact also protecting and contributing to the health of the global environment.

Thus, our witnesses here today will discuss these issues from multiple viewpoints. From the U.S. perspective, from the global perspective, and from the perspective of African countries.

Before I introduce our panelists, I would like to have the members of our subcommittee make opening statements, if they could. Mr. Frazer.

Mr. FRAZER. Thank you, Madam Chairperson, and welcome to the witnesses, who take this opportunity to come this morning to apprise us of the problem in Africa.

We are on this subcommittee because we are concerned about the situation in Africa. I am not going to reiterate those areas that you have already covered. But we recognize that there is a conflict between daily existence in Africa and environmental concerns.

I was in Africa about 5 weeks ago, and I recognize that oftentimes the choice is very difficult between the people who have to make a sustenance, daily sustenance, or to protect the environment.

Soil erosion is a major problem that you spoke of. Many of the African countries, as you said, do not have the luxury to engage in environmental concern. I think that it behooves the international community to come to its rescue. Not that the African countries themselves are not concerned about their problems; yes, they are. But too often, they do not have the resources. And I think that it is important that the international community does that on their behalf.

I recognize that we have taken a lead, and I applaud you for holding this hearing today. I hope that the invited guests will enlighten us to the situation that we may not already know about.

I trust that my colleagues here on this panel, and as a matter of fact I am sure, that they will address those same issues. And again, thank you for the opportunity to be here. And welcome to the witnesses who will enlighten us on the situation that we are all prepared to address.

Ms. ROS-LEHTINEN. Thank you so much, Mr. Frazer.

Mr. Johnston of Florida.

Mr. JOHNSTON. Just briefly, Madam Chair. I do not have a prepared statement. But I would like to make the observation made by the Audubon Society. That the biggest cause of degradation to our environment is people and too many of them.

In fact, 2 weeks ago, the House of Representatives zeroed out in the foreign assistance bill population control funds in effect by diverting to the Mexico City policy, which I think is a disaster for this continent. And I think that we have to look at what is happening there. And the fact that when we talk about population control, that we are not talking about abortion, but we are talking about education and providing people with various means of contraception.

Nigeria is sitting there with 100 million people in this country today, who have no idea what population control is. Rwanda, I think, had the highest population vis-a-vis per acre, and look at what has happened there.

So I would like Ambassador, if that is part of your testimony, to allude to that, I would appreciate it. Thank you.

Ms. ROS-LEHTINEN. Ms. Hastings of Florida.

Mr. HASTINGS. Madam Chairwoman, thank you for holding this hearing. And I wish to extend my courtesies to the witnesses.

I have a prepared statement, and I would like unanimous consent to have it inserted into the record.

Ms. ROS-LEHTINEN. Without objection, we will insert it.

[The prepared statement of Mr. Hastings appears in the appendix.]

Mr. HASTINGS. Only one paragraph of it would I like to read, Madam Chairlady, and it is that I believe that through a union of technology, persistence, U.S. encouragement, as well as others in the world, and well directed monetary support, that we can thwart the rapid depletion of Africa's rich environmental resources. We must end the threat to her biodiversity and protect the breathtaking majesty of this continent.

Thank you, Madam Chairman.

Ms. ROS-LEHTINEN. Well said. Thank you, Mr. Hastings.

Our first panelist is Ambassador Robert Pringle, who will be discussing the social and political factors affecting the implementation of African environmental programs, as well as U.S. policies and initiatives designed to address these issues.

Ambassador Pringle is currently the Director of the Office of Ecology and Terrestrial Conservation at the State Department's Bureau of Oceans and International Environmental and Scientific Affairs.

In this capacity, he focuses on U.S. policy and negotiations regarding biodiversity, forests, endangered species, parks, and wetlands, among others. Previously, he has served as Director of the Office of Central African Affairs, and as U.S. Ambassador to the Republic of Malawi.

Ambassador Pringle's career in the Foreign Service has included overseas assignments in many countries, and a 5-year assignment in the Economic Office of the State Department's Africa Bureau.

We thank him for being here with us today, and sharing his thoughts on such a pertinent issue. We will now proceed with Ambassador Pringle's brief testimony followed by a question and answer period from our panelists.

Mr. Ambassador.

STATEMENT OF AMBASSADOR ROBERT M. PRINGLE, DIRECTOR, OFFICE OF ECOLOGY AND TERRESTRIAL CONSERVATION, BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS, U.S. DEPARTMENT OF STATE

Mr. PRINGLE. Thank you, Madam Chairperson, both for that generous introduction, and for the opportunity to appear before you on this fascinating and crucial topic. With your permission, I would like to submit my full statement for the record, and just try to summarize it.

Ms. ROS-LEHTINEN. Without objection, we will put it into the record.

Mr. PRINGLE. To try to summarize it rather briefly.

I would like to begin by referring to the rather famous article by Robert Kaplan that appeared in the *Atlantic Monthly* about a year ago, which raised the specter of ecocatastrophe largely in Africa; of endemic and systemic failure of the environment. It is an article that made a lot of very good points. I happen to think that his main thrust was wrong. I am not myself an Afro pessimist.

What got me was the end of it where he describes, I think that at the very end of his travels he is coming down for a refueling stop, and it happened to be in Bamako, the capital of Mali. He is describing how he is pulled down from his lofty thoughts in the airplane when he sees the tin shacks of the city looming through the red dust of the Sahara. And he is thinking that is the real world down there, and that is where the future is going to come from, with a very menacing implication.

I was thinking, having just lived there for 3 years, that you cannot be pessimistic about Mali. The people are just too good. There is too much cultural self-confidence and real progress going on. I admit that it looks pretty awful from the air when you are coming down like that. And maybe it is that difference in perspective. It is the human factor that is going to save us in Africa, based on my experience.

But certainly, the risk of environmental failure is enormous. And that is what I wanted to say or what I tried to say in my testimony, which I must say you have covered in your statement. You said it all and with much the same kind of perspective.

There are three main points I want to emphasize.

First of all, environmental failure in Africa on a systemic basis will certainly have global consequences. Eventually it will affect our own environmental welfare. But it would certainly also fall with particular force on the African people, because they are closer to the land. Environmental failure is going to have more direct impact on Africans than on people in most other parts of the world.

The second point that I would like to make is that despite our own negative perception of the environmental situation in Africa, it is certainly not far from hopeless.

There is a lot of experience out there since the great Saharan droughts of the 1970's. There is an awareness on one hand of this that the environment can be a source of profit. Look behind the recent human tragedy of Rwanda to the way that the government and the people's attitude has changed toward the famous mountain gorillas, from the period when the gorillas were sort of an embar-

rassment to them. That period is very well pictured in the movie "Gorillas in the Mist". But over the last 10 or 15 years, there has been growing realization that not only is this wonderful phenomenon a source of national pride, but also a source of revenue.

Even at the relatively low state of development that has existed in Rwanda, ecotourism has been pushing coffee, which is traditionally their number one foreign exchange earner. And if peace is restored, that whole region could become a significant tourist circuit.

That kind of awareness is spreading, as well as awareness, on the risk side, of environmental failure. And it is causing Africans to become interested in doing something. And one evidence of that that we have seen very recently was the African sponsorship of a U.N. Convention on Desertification, which was phrased in very realistic terms. They did not say simply we want more money to throw at this problem. They said we want help in trying to work together cooperatively involving local communities and doing the other things which we know will work to promote the sustainable development of drylands.

And for that reason, the United States supports that Convention. We signed it in June. And I think again that this is testimony to the maturity of the Africans in approaching their environmental problems.

The third point that I would like to make is that the United States is helping as best we can to deal with these problems. And there are two main ways that we go about this. First, as you know, we have a series of multilateral conventions, which focus on the global aspects of environmental problems. And these include the Convention on Climate Change, the Convention on Biodiversity, and the newly signed one on Desertification. I would also mention the CITES agreement, which regulates the international trade endangered species.

Most of these multilateral agreements are basically bargains or compacts between the North and the South, if you will, in which we agree that these are assets of global importance and global value. And we agree also to try to work together to work out solutions, and to help each other to achieve solutions.

The environmental conventions are very important. They are not sufficient in and of themselves. So our second approach is through bilateral assistance as well as our contribution to the multilateral development banks, both of which I think I need not say are at some risk at the moment for budgetary reasons.

There is a lot going on here. Certainly, one of the major planks in our AID program in Africa is to encourage the sustainable development of natural resources. AID is spending approximately \$80 million a year through the Development Fund for Africa on this subject at the moment.

We know that if you get farmers, herders and their communities involved and you can help them gain a sense of stewardship over their resources, that this is the best way to achieve sustainable development. In other words, doing the same kind of thing that we did in this country in the dust bowl in the 1930's, to arrest the degradation of very fragile dry land ecosystems.

That is one major aspect. We are, I would say, a little bit behind with regard to forestry. But there is a proposed project underway

which will address the question of the rain forests of the Congo Basin, which you alluded to, which are the second largest rain forests mass in the world. And this will be an effort which will in effect build on the existing work of nongovernmental organizations, and try to encourage more cooperation.

There are a lot of other programs which are relevant to this topic, including the money that the Fish and Wildlife Service provides for elephant conservation. And a new endeavor, which you may be aware of, which is the International Coral Reef Initiative. This is a pioneering effort by the United States to mobilize attention and resources to arrest the degradation of coral reefs. There are a lot of coral reefs off the east coast of Africa. And to encourage again a sense of community stewardship of this priceless resource, priceless both from an economic point of view and from the point of view of its biodiversity.

My final point is that I do not think that there is a fundamental conflict between development and conservation in Africa. In one sense, there is. People usually need money here and now, and often those requirements are not immediately in support of conservation.

But in the final analysis, good development technologies and good conservation technologies are both about sustainable management. And I might add that they are also about democratization. Because it is community involvement that is usually the key to sustainable management.

By the right kind of assistance programming, we can encourage the type of approach from which we will in the end get multiple benefits in terms of resource conservation, in terms of productivity, in terms of guarding against hunger, and in terms of the promotion of democratization.

All of those things can go together, and can be achieved with the same program dollar. That is the thrust of what I was going to say at some length. And I thank you very much.

[The prepared statement of Mr. Pringle appears in the appendix.]

Ms. ROS-LEHTINEN. Thank you, Mr. Ambassador. We appreciate your comments.

Mr. Ambassador, what Mr. Johnston was talking about, the population programs, could you tell us your viewpoint on these.

Do you think that one of the problems is over-population per se, or is it that there are too many people are grouped in one place and not enough in another place?

Mr. PRINGLE. I was going to say in my written testimony that most land degradation is caused by human activities. We know that. It is exacerbated by population growth, as greater numbers of people are pushed on to less productive lands. That certainly is the pattern.

I do not think that there are too many places in Africa today where there are lands that are easily farmed that are not pretty well populated, and I think that is the problem. There are plenty of places that are lightly populated. But usually, there is a good reason for that. It is because these are difficult environments. And your environmental problems begin when you get too many people pushed into marginal environments.

Ms. ROS-LEHTINEN. Although I have other questions, we have a quorum call, and then another vote right after that. So I will yield

to my colleagues. And then when we come back, I will continue with some of the questions that I had specially about ecotourism and about the dumping of hazardous waste in Africa.

Mr. FRAZER. And we have been joined by Mr. Sanford and Mr. Chabot here today.

Mr. FRAZER. Mr. Ambassador, I would like to know have the African countries themselves taken any initiative that we can support in trying to lessen deforestation. I am asking because about 2 months ago we visited Haiti, and I saw the same situation. When I asked why it is that one hillside was completely denuded, I was told that it was used for fuel.

Could you tell me if, in fact, we are offering any alternatives to the people of these countries to use as firewood?

Mr. PRINGLE. Over the years, there has been a lot of effort to promote the use of more fuel efficient wood stoves and solar technology. And I believe that both of those efforts are continuing. I do not have the exact project information, but I am sure that we could get it for you.¹

You asked if there were any African initiatives. I think that the new Desertification Convention, which the United States signed in June, is in a very real sense an African initiative, to try to make better use of existing foreign and domestic resources, and to try to put more emphasis on community participation, to solve problems of dryland degradation, which emphatically include the problem of deforestation.

Mr. FRAZER. I just have one other question. The issue of one country or one region being overpopulated and others not, you mentioned that oftentimes it has to do with the environment itself.

But aside from the obvious problem of immigration in crossing borders, what other problems would you anticipate that there would be if there were an attempt to encourage countries that we view as overpopulated, to shift their population to less populated areas?

Mr. PRINGLE. It is certainly not a subject on which I am personally expert. But my guess would be that attempts to relocate would probably end up costing a lot of money, and that this would be a very expensive way to go at it. And I am more familiar with this kind of thing in Indonesia frankly than I am in Africa. In Indonesia, it has been rather controversial. It has been done, and it is going on there.

I do not know of any places, in my own personal experience, in Africa where these kinds of efforts have been made. But I think that you would find that that kind of approach does present a lot of difficulties.

Ms. ROS-LEHTINEN. Thank you.

Mr. Johnston. Perhaps we will have the members just ask one question on this go around, because we have a vote.

Mr. JOHNSTON. Mr. Ambassador, the chair makes a good point about population diversity. And there are 600 million people on the continent that is four times larger than the United States. We had a hearing last year on this very issue. And we came to the conclusion that the condom is not the answer in Africa with the exception

¹Project information appears in the appendix.

of possibly stopping the rampant growth of AIDS in Uganda where one out of every four males between the ages of 18 and 40 have AIDS.

But I am talking more on a broad scale. Education, enhancing the status of women throughout the entire continent. I would point out that in Rwanda that if a mother lost six children in famine, that she would have six more. In large part, because we are not educating the population there as to what populations will do to the environment. I do not see that in your statement at all.

Would you comment briefly on that? I am sorry for such a long question.

Mr. PRINGLE. Not a bit. I think that it is absolutely true that you are dealing with a whole network of things here, and certainly education is one of them. But if I can give you a personal answer, which I have not cleared with anybody, and may not be official policy.

My personal view is that people everywhere make rational decisions about family size. The problem in Africa is that there is often no family security. As long as you are in a situation where the more hands you have to feed your family, the better off you are—and that is the situation in most of the agricultural areas in Africa—and when you do not know how many of your children are going to survive infancy, which is emphatically still the case, then it makes economic sense to have children. And that is why people do it.

The value systems that place so much emphasis on family size spring from those economic realities. And I am convinced that as soon as people recognize that it is in their self-interest to have fewer children, and that comes to some extent with education, then they are going to do it. And that is reflected, as you know, in the current type of programming that we do, which links health with population. You have got to give people that assurance that the children that they do have are going to survive before they get over this kind of thing.

Ms. ROS-LEHTINEN. Thank you. Mr. Sanford.

Mr. SANFORD. I will give up my turn.

Ms. ROS-LEHTINEN. Mr. Chabot.

Mr. CHABOT. I will do the same.

Ms. ROS-LEHTINEN. Thank you.

We will interrupt our hearing for a series of votes, Mr. Ambassador. We will be right back.

[Recess.]

Ms. ROS-LEHTINEN. The subcommittee will come to order once again. We still have a series of votes on the floor, but I thought that I would come back and sneak in a few more questions. I will then excuse myself again to go vote. Thank you, Mr. Ambassador, for your patience.

I wanted to ask you about the concept of ecotourism. Traditionally, the international development community has shied away from projects that involve promoting tourism, and some critics argue that investment in tours and projects do not benefit the local population.

Yet in your written testimony, you discussed the need for ecotourism. Tourism and ecotourism are important industries in

my home State of Florida, so I can see the benefits that countries would gain from promoting these projects.

Can you give us your analysis of the political environment for ecotourism in Africa? Has there been any change in the acceptability of economic development and investment in tourism, and what can be done to maximize the local population's economic benefits from the tourism industry?

Mr. PRINGLE. I could be wrong on this, Madam Chairman. But I am not aware of much serious opposition to the idea of ecotourism these days. I think that everybody sees it as a "win-win." Granted that it might not always be easy to structure your ecotourism so that local people are employed. That is where the outside world can help, I think, by encouraging and by making it possible for people to take that extra step at the beginning, so you do get communities involved.

I mean it is more work that way, but it can be done. There are plenty of employment possibilities. Ecotourism is a service industry basically. And then there are all of the revenue benefits. And I would add the benefits in terms of awareness raising and as a source of national pride.

Ms. ROS-LEHTINEN. What countries in the continent are more active in the promotion of this industry?

Mr. PRINGLE. You have to say that in southern Africa, it really started in Kenya in a big way. It is enormously important economically in Kenya. It has become so over larger areas of southern Africa. Ecotourism in Botswana is highly developed. It is catching on in a big way in Namibia.

There is kind of a spread effect. Because people find, which I will hope you will discover on your trip in August, that game parks are addictive. They are so spectacular. And once you have seen them, you want to see more. And you want to go to places where the tourist herd is not going. You want to get away. If everybody else is going to Kenya, all of a sudden Namibia looks tremendously attractive, which indeed it is. So they are now going to places like Namibia, which are a little bit off the beaten track.

If peace can be restored in the Central Africa area, the whole complex area around the rift valley lakes is going to be enormously attractive.

Uganda, which has been neglected for many years, because of the security situation there, is coming back. And there is a natural tourist circuit easily done by vehicle running out of East Africa through the Rift Lakes and into eastern Zaire, where there has always been some tourism despite the difficulties involved.

West Africa is not as spectacular on the same terms as East Africa, and people do not know about it, but there is a great potential there as well. And finally, there is, as we are discovering in Central America, a tremendous fascination on the part of a lot of people for rain forests, and justifiably so. And I think that we are going to find that the rain forest features of Central Africa, once people know about them, can also be a tremendous drawing card.

Ms. ROS-LEHTINEN. Which countries?

Mr. PRINGLE. Gabon, which is a place that people have not heard of. And it is certainly not considered to be a tourist designation among Americans. There is a park there where the forest elephants

actually come down to the beach. Gabon has one of the largest populations of forest elephants in the world. There is a famous park in the Congo, on the Congo-CAR border, on which there was a cover story in Time magazine last year.

These are going to be very specialized ecotourism experiences for awhile; but they can be very, very important in those economies, I think.

Ms. ROS-LEHTINEN. And you would say that those benefit the local communities?

Mr. PRINGLE. If properly structured. And I think to be viable that they have got to be. Yes, in terms of—I believe, for example, that in Zambia, Mark and Delia Owens who wrote "The Cry of the Kalahari", have discovered again that the way to do effective elephant conservation is to involve local communities. Their whole structure and their whole project approach—Delia Owens, Mark and Delia Owens. Their whole approach in Zambia has been based on that, and it is a source of income. It is the only effective way of getting a handle on the poaching situation.

Ms. ROS-LEHTINEN. Well, thank you. Finally, from time to time, there are articles in the African press about waste management companies of Europe and North America, who are seeking to dump hazardous waste in African countries.

What is the administration's policy toward shipment of hazardous waste for disposal in Africa?

Mr. PRINGLE. You hit me in an area that I am not personally an expert on. So let me proceed with a certain amount of caution. I do not think that anybody is in favor of the dumping of hazardous waste.

There is an issue that has been before the Basel Convention, which we are not a member of, recently, which is a bit controversial. And that involves the legitimate, at least in my view legitimate, export of scrap material for recycling. Not hazardous waste, but things like plastics or metal, which are exported and which can be processed industrially in developing countries without any hazard to anybody, as a legitimate source of economic livelihood.

There is a debate in the international community, and in the context of the Basel Convention on that. But I think as far as simply exporting hazardous or toxic materials, that that is absolutely unthinkable and to be condemned, not only on its own face but because we all know how sensitive the Africans are to this kind of thing. I think that they simply will not stand for it.

Ms. ROS-LEHTINEN. Thank you. Let me ask some more questions until some of the members come back.

About the urbanization of the African population. Urban pollution problems continue to build in most parts of the Third World as population growth in cities continues to expand more rapidly, obviously, than the urban infrastructure can absorb. It is true for us here as well.

What can and should be done to slow the urbanization of the African population, and is that anything that this administration is working toward with African countries?

Mr. PRINGLE. Of course, what attracts people to cities is employment. And above all, in the old days, when urban populations were subsidized by governments, they were given cheap food, and they

were given easy employment by the civil service, that had a natural draining effect on the countryside. But I think that in the long run that what is going to keep people in the country is a feeling that there is a viable living for them to be had there. And the best way to do that is precisely through some of these natural resource management and other approaches to grassroots community involvement in caring for their resources. Because it will make their resources more productive, and it gives them a sense of ownership. They begin to make some money. They see some economic possibilities.

And grassroots credit programs, which we are having a lot of experience with, are another way of putting economic vitality into the villages. And that is what is going to keep people in those villages. They do not want to leave. If they can see a viable way of staying home in their villages, they are very attached to them, and they will do that.

That is why Peace Corps has had such an impact. The Peace Corps above all, besides helping people cope with practical problems, is seen by Africans as an expression of faith by the outside world in the viability of their situation. And that means a great deal to them.

Ms. ROS-LEHTINEN. And urban pollution discharge, are some countries or cities in the continent doing more to deal with this sort of problem?

Mr. PRINGLE. I know that this is a tremendous issue in South Africa. And I think that they are particularly concerned about it. Of course, they are more advanced and more industrialized than most of the other sub-Saharan economies. As far as the rest of the continent is concerned, and it is a very crude generalization, everyone realizes that urban pollution problems are very considerable. I think that they have been somewhat neglected in my view, if only because there is so much to be done in the rural areas. Because that is where you have got to focus your efforts, if you are going to get economic growth going.

Ms. ROS-LEHTINEN. We have already touched upon the agricultural productivity in Africa having failed to keep pace with the growth of the population over the past 30 years, despite the expansion of the land area under cultivation.

What can African countries do and what can the administration do to help them reverse the declining per capita food production without further harm to the environment? And we have alluded to some of those steps already.

Mr. PRINGLE. Much of the structural adjustment agenda, albeit somewhat controversial in some circles, in the last 10 years has been a big step in this direction. Because it has made it possible for farmers to get a fair return on their product. I saw this very dramatically in Mali. Mali has become food self-sufficient. It was a Sahelian problem a decade ago. Admittedly, the rains have been very good lately. I realize that has had a lot to do with it.

Mali for the first time exported rice this year, which would have been unthinkable a few years ago. Cattle exports are back up. That is a direct result of CFA devaluation, and of government policy which is allowing the markets to work, which they did not in the

old days when it was illegal to carry a bag of rice in your car from one area to another.

Ms. ROS-LEHTINEN. Thank you. Mr. Ambassador, I will probably end your part of the testimony here, even though some of the members have not come back from voting. And if you do not mind, I will introduce the second panel.

I will ask my colleagues on the subcommittee if they have any further questions to you, and perhaps we can submit them in writing. We will have some follow-up meetings on the important topic of ecology on the African continent.

Thank you for your testimony today.

Mr. PRINGLE. Thank you. It has been a real pleasure, and we would be delighted to follow up on any questions at all at any time.

Ms. ROS-LEHTINEN. Thank you so much.

Now it is my pleasure to welcome the speakers of our second panel. Once I welcome you, I will go to vote. I hope I can make it in time. First, we will hear from our former colleague Ron Marlenee. The Congressman describes himself as a farmer, a rancher, and businessman from northeastern Montana. He was first elected to the U.S. Congress in 1976, and served diligently until 1992. During his 16-year tenure in Congress, he served on the Agriculture Committee, as well as the Natural Resources Committee.

He is now a consultant and director of legislative affairs for Safari Club International, a "worldwide conservation sportsmen's organization," involved with conservation programs throughout the world.

We are also very fortunate to have with us today Mr. Henry Nsanjama of the World Wildlife Fund. Mr. Nsanjama is the vice president for Africa and Madagascar Programs for WWF, and has spent his professional and academic life focusing on wildlife and environment management issues.

Prior to joining the World Wildlife Fund, Mr. Nsanjama served as director of national parks and wildlife in Malawi. He has served in numerous other capacities including as wildlife coordinator for the Southern African Community, while also serving as chairman of the Standing Committee of the Convention on International Trade and Endangered Species of Wild Fauna and Flora. He began his career working as a trainee ranger, game warden, and wildlife biologist.

We thank them for joining us here today to share their views and recommendations.

Before we begin, I will recess. The subcommittee will stand in recess. I will go vote, and come right back. Thank you.

[Recess.]

Ms. ROS-LEHTINEN. The subcommittee will once again come to order. I apologize for my delay. I was just talking outside—let me see how close I can get to the actual pronunciation of this name—the Honorable Amena Nerhusan Abul Kikatur. She is a member of the Parliament from Eritrea, who is visiting with us today. It is a pleasure. [Applause.]

She was informing me that 20 percent of the parliament in her country is made up of women, so good news for all of us. Thank you so much, Madam Honorable. It is good to have you with us.

We had just briefly introduced our panelists. I reiterate our appreciation for joining us today. As the Congressman points out, we have the Ambassador of Zimbabwe here with us today. That is the Honorable Amos Bernard Midzi. Is the Ambassador still with us right now? Thank you. Welcome, Mr. Ambassador. [Applause.]

We will start with the Congressman for his remarks. Thank you.

STATEMENT OF THE HONORABLE RON MARLENEE, FORMER MEMBER OF CONGRESS AND DIRECTOR, LEGISLATIVE AFFAIRS, SAFARI CLUB INTERNATIONAL

Mr. MARLENEE. Thank you, Madam Chairman. And the fact that we have the dignitaries in the audience that you have attest to the esteem with which this committee is held.

Africa is our greatest hope and our greatest despair. One need only to ride a 747 from London to Johannesburg for 12 hours to realize the vastness of this continent. This is a continent with sophisticated cultures such as South Africa's, and the most primitive that provide only a structure of simple authority.

The Safari Club has more members who have spent more time over a larger period of years with African people of every level than probably any other organization. Our members understand that the continent, its cultures, and its resources are so vast that it defies a one size fits all solution.

One thing is clear. If we are to preserve the fountainhead of wildlife, habitat, and biological diversity, we can do so only with the support and participation of each individual group of indigenous people. It cannot be done with selective trade sanctions or embargoes, which are little more than imperialistic intervention.

This U.S. imperialistic involvement caused the diplomats of four nations, four Ambassadors, four African nations to submit a diplomatic protest to our State Department, which I submit for the record.

It cannot be done by creating societies of welfare dependents on foreign aid. It cannot be done by the ecocolonialism, as is succinctly pointed out in an article of that title that I have submitted with my testimony. In that article, the executive director of the U.N.'s environmental program, Dr. Mostafa Tolda, in his address to CITES stated,

There are complaints, loud complaints, from a number of developing countries, that the rich are more interested in making the Third World into a natural history museum than they are in filling the bellies of its people. These people use a small fraction of the world's resources. They earn a pitiful fraction of the world's income. They bear the brunt of famine, and poverty, and disease. They want a better life. They also happen to live mainly in the tropical and sub-tropical belts of our planet. These people cannot be denied the right to use their natural patrimony.

However, the view of some is that Africans are not competent to establish their own wildlife goals nor implement effective conservation programs. That is a false belief, and it should not be repeated. And mistakes of the past that assume that should not be allowed to continue.

If you do not respect the professionalism, the commitment, or the needs of those managers like my guest Henri along side of me, how in God's name do we expect to save one species let alone a whole ecosystem or a whole continent.

These countries in good faith committed to saving their endangered and threatened species by signing the CITES Treaty. Yet it is the United States of America that is violating the intent of that treatment and insulting the efforts of the CITES experts, the wildlife scientists, and the wildlife managers of nation after nation.

Time after time, the bureaucrats of U.S. Fish and Wildlife deny the cash necessary to run these vital conservation programs by denying the impoverished nations' permits to harvest and import agreed to by CITES permits that CITES has said yes, these can be harvested. These bureaucrats blatantly do this without regard to the consequences or the intent of the Endangered Species Act.

The much respected lion of the Congress and author of the act, John Dingle, stated that the act was never, never intended to eliminate the use of harvesting of game as a conservation tool.

As the ESA is being implemented at the present time, it is extreme agency overkill when it comes to foreign species. A planned act of deprivation, and eradication, and extinction could not have worked better in eliminating certain species.

We have talked about the problems, but what are our choices. One is to protect the species to death by eliminating all use, in which case our policy encourages protein from poaching, Madam Chairman. And the vast shifts in habitat from wildlife to food protection are the result of protecting species to death. And it encourages such cash generating pursuits as primitive agriculture, timber harvest, et cetera.

Another choice is the protection of protein and professional management that involves each community and individual. We in America must be willing tools and not totalitarian, if we are to insist on the reversal of this trend.

The SCI and its membership has been and will continue to be one of the tools of conservation. Tourists safari hunting has provided millions and millions of dollars for wildlife programs through the selected harvest of surplus animals under the control of local professional wildlife management, and with the evaluation of the International CITES Committee.

The impact is very low of hunters participating and relishing the rudimentary facilities. Hunters demand the lowest infrastructure of all tourist groups, and seek out the most remote areas, thereby giving maximum benefit at the lowest run of the economic ladder. A sportsman wades the stream, while other tourists demand a bridge.

Madam Chairman, we talked, and you spoke of urbanization and the shift of people in areas to more urban areas. And the solution, it seems to me, or one of the solutions, is to make it economically viable, and provide those incentives for those people to live like they want to live, and to manage the area like they want to manage it in those remote areas of Africa, all of Africa.

One of the most currently effective programs in Africa is CAMP-FIRE. Elizabeth Rihoy is a unique hybrid of talent. She is an academic publishing several papers. She is a conservationist. She has lived a life of, and with, indigenous people. She is committed. And I submit her written testimony. But before I do, allow me to stimulate your interest with some quotes.

Ms. ROS-LEHTINEN. If you could stimulate it in a very brief manner, that would be great.

Mr. MARLENEE. I will be brief. I will just submit the paper.

Ms. ROS-LEHTINEN. I am easily stimulated. No problem.

Thank you so much, Congressman.

[The prepared statement of Mr. Marlenee appears in the appendix.]

Ms. ROS-LEHTINEN. And now, we are pleased to present Mr. Nsanjama.

**STATEMENT OF MR. HENRI NSANJAMA, VICE PRESIDENT,
AFRICA/MADAGASCAR PROGRAM, WORLD WILDLIFE FUND**

Mr. NSANJAMA. Thank you, Madam Chairperson.

Yesterday afternoon, I submitted written testimony. But after the submission, I discovered a couple of mistakes, which I have now corrected. And I would like to submit that.

Ms. ROS-LEHTINEN. We would be glad to do so. Thank you.

Mr. NSANJAMA. I would like to begin my presentation by thanking you, Madam Chairperson, for calling this hearing. As the U.S. Government redefines its role in international development policy, the question of Africa's ecology is indeed timely.

Since my organization's primary mission is conservation of species and critical habitats, my principal focus as I come before this subcommittee is to encourage your support for conservation and development programs in Africa funded by the U.S. Government.

The biological diversity found in Africa includes the greatest diversity of plant and animal species of any biogeographical region. In many cases, the African flora and fauna are completely distinct and truly spectacular. There are three major categories of ecosystems in Africa; savannas, tropical forests, and the montane forests.

Each ecosystem is crucial to the ecology of the continent, to the continent's inhabitants, and U.S. policy toward Africa.

Africa is perhaps best known for its savannas, such as the Serengeti in Tanzania. The savanna ecosystem is better developed and more extensive in Africa than anywhere else in the tropics. The savanna has the widest range of potential for domesticated animals, and the greatest diversity of agricultural flora from which to select future crops.

The tropical forests of Africa are of major global importance. Of all ecosystems in Africa, they contain the greatest number of species including plants for valuable drugs and edible fruits. Examples of important species include the *Anceistocladus korupensis* found in the Korup National Park in Cameroon, which is known to kill the AIDS virus, and is currently under extensive research as a cure for the disease. *Prunus africana*, also a plant from Cameroon, is one of the best treatments for prostrate cancer.

African montane forests also serve a vital function for human needs by protecting watersheds and water supplies to the lowland areas. Montane forests also protect spectacular and interesting fauna and flora, including mountain gorillas, golden moles, and giant alpine plants.

Ecotourism in Rwanda, which is basically mountain gorilla viewing, is the third highest source of hard currency for that country after tea and coffee respectively. The viability of Africa's rich and valuable biological resource is increasingly threatened in all three

ecosystems, and is endangered in some cases. An example is the severely endangered status of the black rhinos. Several factors have contributed to this situation, including severe economic stagnation; human population growth; low agricultural productivity leading to overuse of marginal land; poor development of human resources and weak institutions; and frequent droughts throughout the continent.

Of all of the contributing factors, poverty is probably the major constraint to conservation in Africa and its ecological health. Economic underdevelopment leads to poverty, which in turn leads to unsustainable use of resources. Most African countries remain below the poverty line, according to the United Nations.

In order to provide even the bare minimum for their people, many African governments are exploiting their natural resources, in the form of logging, collection of nontimber plant products, fishing and wildlife in an unsustainable manner in order to mitigate the devastating human suffering.

Having said this, Madam Chairperson, in recent years, conservationists within Africa and other parts of the world have developed a new kind of conservation that has brought a sense of optimism. This shift in conservation philosophy has brought the realization that conservation and economic development cannot be separated. Protection of the environment must be balanced with the development needs of the people.

World Wildlife Fund has projects in Africa that now exemplify this philosophy. The projects include Living in a Finite Environment in Namibia.

In the use of national resources, we have learned that environmental disruption is an avoidable consequence. World Wildlife Fund, together with African communities all over the continent, seek to minimize disruption to the functioning of ecological systems.

Madam Chairperson, it is not too late to save Africa's ecological integrity from threats of poverty and the hardships that follow poverty. Africa still has vast areas of territory with little or no human presence. The system of parks and protected areas in many countries, while not complete, is well developed. Although the levels of public awareness and understanding of the consequences of environmental degradation are low, they are improving, and many countries have made significant steps toward passing laws that protect the environment.

With the advent of democratic governments in many parts of the continent, many countries are addressing their economic problems, and there are systems of checks and balances emerging.

While these are important elements, Africa will continue to seek assistance from the developed world. The United States has an important role in this respect as a leader in both development assistance and protection of the world environment.

Madam Chairperson, it is worth noting that several wildlife species which were endangered a few years ago, including the leopard, the Nile crocodile, and even the mountain gorilla, appear to be making a strong comeback due to conservation efforts on their behalf, and indigenous grassroots conservation initiatives. The recovery of these species demonstrate the fact that Africa's ecological fu-

ture lies in ensuring that rural communities have an economic stake in conservation.

In conclusion, I would like to say that humankind has a duty to conserve the environment of the world. In Africa, there is still time to do so. However, I must warn that more and more indicators show that we have now reached the cross-roads. We must decide now whether we are going to proceed in our efforts to conserve the rich and diversified life that Africa offers side by side with our African partners or not.

Finally, I invite you, Madam Chairperson, to visit some of our projects in Africa. I am confident that you would be satisfied with the tremendous benefits these projects are providing for the local people, their countries, the African ecology, and the global community.

I thank you.

[The prepared statement of Mr. Nsanjama appears in the appendix.]

Ms. ROS-LEHTINEN. Thank you, Henri, and thank you, Ron. I just have one question that both of you could answer.

What is the proper relationship between animals and humankind or mankind when both share the same space, as it relates to the African continent; and how can this relationship be maintained for the benefit of both, what do you see as the proper balance?

Mr. MARLENEE. The proper balance is the opportunity to develop a sustainable use supported by that local population. As long as that population of indigenous people understands that there is value to the wildlife, they will protect it. They will support the habitat that is necessary to maintain those populations. They will support the——

Ms. ROS-LEHTINEN. Economic value, you mean, or what kind of value?

Mr. MARLENEE. A sustainable use, economic value, under professional wildlife management. Then they will support that population. And they will support the habitat necessary. And extending it on, they will support the establishment of well springs, and parks, and areas that make certain that these populations can be generated for the whole of the area. But if you take away that incentive, then it is protein through poaching.

Ms. ROS-LEHTINEN. Thank you. Henri.

Mr. NSANJAMA. I agree with Ron. I must although say that humans are going to decide what animals are going to be protected and in what numbers. Humans decide that. Now, having said that, we must remember that we have evolved side by side with these wild resources. And, it is a moral obligation on our part to make sure that these animals do survive. So there is a moral obligation in making the decision. But having also said that, given the competition for space, people are going to make good decisions about wildlife, if that wildlife can contribute to the economic benefit of those people.

Ms. ROS-LEHTINEN. Well, we thank you very much for joining us today. We thank the audience for bearing with our many interruptions. We will have another round of these hearings on the ecology of Africa and the proper role and balance for U.S. policy to main-

tain the species, and biodiversity, and all of the wonders of Africa alive for all of us. So thank you very much for being here.

The subcommittee is now adjourned.

[Whereupon, at 11:46 a.m., the subcommittee was adjourned.]

APPENDIX

HONORABLE ALCEE L. HASTINGS
STATEMENT ON "AFRICA'S ECOLOGICAL FUTURE"
SUBCOMMITTEE ON AFRICA
JUNE 21, 1995

MADAME CHAIRWOMAN, I WOULD LIKE TO THANK YOU FOR HOLDING THIS HEARING TODAY DURING A CRITICAL PERIOD FOR AFRICA. THE ISSUES WE WILL DISCUSS TODAY ARE PERTINENT NOT ONLY TO AFRICA, BUT TO THE WHOLE WORLD, AS THE ENVIRONMENT IS SOMETHING THAT WE ALL BEAR A SACRED RESPONSIBILITY TO PRESERVE AND DEFEND.

THERE IS A GROWING FEAR OF AFRICA'S ABILITY TO CONTINUE TO FEED AND EMPLOY ITS RAPIDLY EXPANDING POPULATION. YET, AT A TIME WHEN AFRICA IS EXPERIENCING MUCH ECONOMIC HARDSHIP, WE ARE EXPERIENCING DIFFICULTY UNDERSTANDING THE IMPORTANCE OF ENVIRONMENTAL CONSERVATION. IN OUR VIEW, ECONOMIC DEVELOPMENT RANKS AS A HIGHER PRIORITY THAN THE PRESERVATION OF WILDLIFE AND NATURAL RESOURCES. HOWEVER, UPON CLOSER SCRUTINY, IT IS APPARENT THAT THE PRESERVATION OF THE ENVIRONMENT PLAYS A VITAL ROLE IN THE MOVEMENT TOWARDS ECONOMIC DEVELOPMENT AND PROSPERITY. THERE IS A CLEAR CORRELATION BETWEEN THE PROTECTION OF ENVIRONMENTAL RESOURCES TODAY AND BETTER ECONOMIC DEVELOPMENT AND PROSPERITY TOMORROW.

TIME IS RUNNING OUT FOR AFRICA AS TROPICAL DEFORESTATION IS REACHING ALARMING PROPORTIONS, LEADING TO CLIMATIC CHANGES AND DESERTIFICATION. AS THE STATE OF THE ENVIRONMENT CONTINUES TO DECLINE, PRECIOUS LAND AND MONEY ARE BEING LOST RATHER THAN GAINED.

THE ECONOMIC AND SECURITY INTERESTS OF THE UNITED STATES ARE GREATLY AFFECTED BY THE ENVIRONMENTAL MORASS IN AFRICA. THE RECENTLY DIMINISHED FOREIGN ASSISTANCE DEVOTED TO AFRICA WILL PROVIDE LITTLE RESOURCES FOR CONSERVATION EFFORTS. ADDITIONALLY, ENVIRONMENTAL DEGRADATION HAS MADE IT VIRTUALLY IMPOSSIBLE FOR AFRICA TO DEVELOP AS A PRODUCTIVE MARKETPLACE FOR AMERICAN GOODS. BOTH CONGRESS AND THE ADMINISTRATION HAVE EXPRESSED CONCERN FOR THESE VARIOUS ISSUES. UNFORTUNATELY NO LEGISLATION HAS BEEN SPECIFICALLY AIMED AT AFRICAN ENVIRONMENTAL ISSUES.

THE MUCH MALIGNED A.I.D HAS IN FACT BEEN VERY SUCCESSFUL IN PROMOTING RENEWABLE ENERGY SOURCES AND FOSTERING CONSERVATION EFFORTS. PROGRAMS HAVE ALSO BEEN UNDERTAKEN TO SLOW DOWN THE DISTURBING RATES OF DEFORESTATION BY RESPONSIBLE FOREST MANAGEMENT, REFORESTATION EFFORTS AND AGROFORESTRY TECHNIQUES. HOWEVER, THERE STILL REMAINS MUCH TO ACCOMPLISH.

MADAME CHAIRWOMAN, I BELIEVE THAT THROUGH A UNION OF TECHNOLOGY, PERSISTENT U.S ENCOURAGEMENT, AND WELL-DIRECTED MONETARY SUPPORT THAT WE CAN THWART THE RAPID DEPLETION OF AFRICA'S RICH ENVIRONMENTAL RESOURCES. WE MUST END THE THREAT TO HER BIODIVERSITY AND PROTECT THE BREATHTAKING MAJESTY OF THIS CONTINENT.

I TAKE GREAT PLEASURE IN WELCOMING OUR MANY DISTINGUISHED WITNESSES AND LOOK FORWARD TO THEIR TESTIMONY.

Testimony of
Ambassador Robert M. Pringle
Director, Office of Ecology and Terrestrial Conservation
Department of State
Before the Subcommittee on Africa of
the House International Relations Committee

June 21, 1995

Madame Chairman:

The subject of this hearing poses a fundamental question about the balance between human activities and the environment in Africa, and what the future will hold. The costs of environmental failure, if it happens, would fall with particular force on human beings in Africa. Let me briefly explain why this is so.

-- First, because economically productive African habitat -- mostly rainforest or savanna -- is particularly prone to degradation. According to UN sources, desertification causes \$40 billion in lost production world-wide annually, about \$10 billion of this in Africa.

-- Second, because most Africans still live on the land (agriculture is the primary source of employment for seventy percent of the population), and when their land is at risk, so are they;

-- Third, because Africa has a terribly high proportion of its population already malnourished, so that further decline in the natural resource base, on which food supply is dependent, can easily have fatal results;

-- Fourth, because many new and promising opportunities for growth, such as ecotourism, also depend on a relatively fragile resource base.

Most of Africa's land degradation is caused by human activities, exacerbated by population growth as greater numbers of people are pushed on to less productive lands. Such settings are a breeding ground for ethnic conflict which forces more migration, puts ever more strain on marginal lands, and feeds a cycle of poverty, civil strife and environmental crisis.

Taken together these factors present a formidable challenge to African nations and, I would like to emphasize, to the welfare of the planet. But the situation is far from hopeless:

-- Africa's dependence on a fragile environment is forcing new awareness that natural resources must be better managed. It's a question of survival, and Africans

-2-

know it better than anyone else.

-- Almost forty years of post-colonial experience have demonstrated what works and doesn't work in this realm. Most important has been the widespread realization that local community involvement is the key to sound resource management.

-- There is encouraging evidence that Africans are prouder than ever of their wildlife heritage, aware of its economic importance (as a magnet for tourism, but also for many other reasons), and determined to manage it rationally. The success of the ivory ban and reversal of decline in elephant population is the most dramatic example, but far from unique.

While rapid population growth is still a constraint, several countries are demonstrating that population programs linked with maternal and child health care programs can work.

It is dangerous to generalize about Africa, and the picture remains mixed. But by and large, many of the structural economic problems that hobbled African agricultural production -- unrealistic exchange rates and subsidies to urban elites -- have been fixed. From Mali to Malawi, new policies are encouraging economic growth. And this means that peasants have new incentives to nurture their land, forest and water resources.

In short, there is both good news and bad news on the environmental front in Africa. The bad news, which tends to dominate our perceptions, suggests an inexorable pattern of poverty and population growth linked with systemic environmental failure. The good news is about better technology and growing awareness of environmental issues, beginning to have tangible results. This hearing has posed the question: will positive or negative trends prevail? What will be the state of Africa's natural resource base, so vital for human survival, in another forty years?

The short answer is that predicting the future in Africa is just as uncertain as it is anywhere else.

But we do know that we can help make things go in a direction that will avoid eco-catastrophe, with all its political and humanitarian ramifications. Africa remains the poorest region of the world, and external assistance will be essential for some time to come. U.S. policy, articulated through the Development Fund for Africa and a variety of multilateral commitments, is based on that reality.

Multilateral Commitments

The United States participates in a number of international environmental treaties which at first glance seem far removed from the reality of African villages or game parks. In fact these treaties play a vital role in mobilizing international awareness and committing governments to cooperate in solving problems, such as global climate change, which affect all mankind. A few significant examples:

-- The Convention on Global climate change mandates world-wide cooperation to analyze the threat of global warming and devise preventive action. We are supporting climate change studies in half a dozen African countries (including Botswana, Mozambique, Zambia and Zimbabwe) to help them inventory their greenhouse gas emissions, to evaluate their vulnerability to climate change, and to begin considering remedial measures.

-- By signing the Convention on Biodiversity, we signalled our support for sustainable use of the biosphere and the equitable sharing of benefits from technological advances based on biological resources. When this Convention is implemented, countries in Africa and around the world will have new incentives and resources for the conservation of their unique biological heritage.

-- The Desertification Convention, which the United States has signed, supports the sustainable management of dry lands and gives priority to Africa. It will stimulate international cooperation in the diffusion of new technologies, such as climate early warning systems, so they can be of direct benefit to farmers. It will also encourage aid donors and local governments to use anti-desertification aid more effectively -- by, for example, promoting better planning, community participation, and regional cooperation.

-- The Global Environmental Facility (GEF), recently established to support the Biodiversity and Climate Change Conventions, will be of great relevance to Africa. Already 27 GEF-supported projects are being planned or implemented in Africa.

-- CITES (The Convention on International Trade in Endangered Species) is the primary vehicle for mobilizing international support for the regulation of threatened species everywhere, including those that comprise Africa's unparalleled wildlife heritage.

One aspect of the Climate Change Convention is of particular relevance to Africa. The Convention requires all

-4-

countries to take measures to mitigate climate change by addressing their emissions of CO₂ and other greenhouse gases, and increasing their carbon absorbing capacity (by, for example, reforestation projects or new emissions reduction technology). Under the concept of "Joint Implementation" (agreed in a non-crediting pilot phase at the first Conference of the Parties in Berlin) developed countries can reduce emissions by investing money abroad to help other countries reduce their emissions or increase their carbon absorption capacity.

Bilateral Assistance

Our bilateral programs address many key aspects of the African environment. Let me discuss this topic under habitat-related headings:

Rainforests. Central Africa has the world's second largest expanse of moist tropical forest, after the Amazon. A proposed new regional project, the Central African Regional Program for the Environment (CARPE) will bolster the forest management capacity of governments, support project work by non-governmental organizations (NGO's) and increase our scanty knowledge of this vast resource.

Arid and Semi-Arid. These are the present and potential "dust bowls" of Africa, breeding grounds of starvation, the subject of the Desertification Convention, and a major focus of AID's Natural Resource Management Programming. We have learned that when farmers have a stake in land management planning -- when it is not simply imposed on them from above -- they will not only produce more, but do so with techniques, such as composting and diversified cropping, which sustain production and help preserve the natural resource base. USAID's total environmental spending in Africa, mainly on this kind of activity, will amount to an estimated \$82.3 million in 1995.

Urban Environment. For Africans, indeed for just about anyone, the most important corner of the environment is one's own front or back yard. For villagers, access to clean water remains fundamentally important. For city dwellers, waste disposal is often another high priority. Permanent, sustainable solutions to these problems and many more depend above all on healthy per capita economic growth and a rate of population increase which does not outstrip the ability of heavily burdened governments to provide services. Our aid programs, technical agencies and the Peace Corps can often provide relevant expertise.

Elephant Country. As you know, the management of African elephants is the subject of ongoing debate. The United States recognizes the need for concerned populations to derive benefit from elephants, at the same time that we recognize the extreme danger of reopening the ivory trade. We believe that solutions to the elephant issue must be long-term and regional in nature,

-5-

and we view the Lusaka anti-poaching accord as a step in the right direction. Our Fish and Wildlife Service will continue to provide (and hopefully to expand) assistance to African states trying to rationally and humanely manage their elephants.

The Future

We still have a lot to learn about solving environmental problems, at home or abroad, but certain basic principles are now clear. For example, we have learned that the solution to environmental problems is almost always about balancing legitimate interests. That is what the global conventions -- including Climate Change, Desertification, and others -- attempt to do at the highest level. But the same principle needs to be applied at every level -- regional and national as well as global -- if paralysis is to be avoided. We know that:

-- There will be no such as thing as environmental progress without an economic foundation;

-- The most difficult arguments usually involve short-term benefits (such as cash for resource exploitation, or the poverty-driven need to misuse marginal land), versus preservation of resources on a sustainable basis with attendant long-term benefits.

-- Meeting basic human needs (for health, education and human rights) is an essential foundation for sustainable development;

Unfortunately we also know that short-term economic problems/opportunities usually resonate a lot louder, especially in desperately poor countries, than what may happen in the future.

That is only one reason why external assistance will be essential for some time to come to enable African countries to manage their resource base sustainably, deriving present livelihood without compromising the ability of future generations to do the same.

At the moment our ability to support the programs outlined above, both bilateral and multilateral, is under severe budgetary threat. It is important to realize that these programs are an investment in the future, with multifaceted benefits.

Community participation is a fundamental principle of modern natural resource management policy. By encouraging participation at the village level we can help Africans to safeguard their environmental heritage at the same time that they are building democratic institutions, attacking the major cause of hunger, and promoting economic growth. If this "quadruple whammy" effect can be achieved on a broad enough scale, it will insure that Africa avoids endemic ecological catastrophe and that man and nature come into balance. There is no question that we can help make it happen.

In closing I would like to express my appreciation to you, Madame Chairman, and to the Committee, for this opportunity to appear before you.

Congressman Ron Marlenee
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Ron Marlenee
Member of Congress
1976 - 1993



**Safari Club
International**

**TESTIMONY OF
SAFARI CLUB INTERNATIONAL**

**Before the Subcommittee on Africa
HOUSE COMMITTEE ON INTERNATIONAL RELATIONS**

on June 21, 1995

on the

**"Africa's Ecological Future;
Natural Balance or Environmental Destruction"**

Appearing before the Subcommittee

Hon. Ron Marlenee, Director of Legislative Affairs

Ms. Liz Rihoy, ART

Safari Club International

Madame Chairman:

On behalf of Safari Club International I want to thank you for this opportunity to testify on a topic that is very important to us.

The members of SCI represent an important economic resource to the countries of Africa. At the same time, we are a force for conservation of the great mammals of Africa and all of the habitats that they occupy.

The point is really very simple. Big game hunters, who come primarily from the United States, pay significant premiums for the privilege of harvesting the biological surplus of many species to be found in Africa. This input of foreign exchange is earned at a very low cost in infrastructure development, because hunters are willing to take to the field without the extensive development of running water, electricity and resort hotel facilities.

The ecological, biological and social costs are also very low. Sportsmen integrate with the indigenous peoples. Tourists do not. In addition, it takes far less hunters than it does tourists to bring in the same amount of dollars. Therefore, the impact on the environment is much less. It's much better to have a sportsman who will wade across the stream with the natives than a tourist who needs and demands a bridge. Hunters relish the low impact camps rather than the huge infrastructure of tourist accommodations. They travel into these areas to become a part of the unique and the remote and they prefer that few footprints precede or follow them.

On the biological side hunting is highly regulated, very few animals are taken, and the animals taken represent a genetic surplus. So it is quite possible to continue hunting of virtually all species without reducing the overall populations of animals. In fact in some cases, eliminating the aggressive old male animals from the population often stimulates the growth of populations by letting more fertile younger males participate in the breeding. This is the case with elephants, for example.

What I have portrayed here, Madame Chairman, is how the hunters work with the safari outfitters, who in turn work with the wildlife managers of the African countries, to provide significant economic gains and to make a huge investment in the future of wildlife. For many rural communities, safari hunting provides a major portion of their annual income without reducing the biological capital of Africa, without destroying

the ecology of fragile areas, and without disrupting social patterns.

Safari hunting does all of this in a way that would never be possible if those who would prohibit wildlife imports have their way. The prohibitions force an unacceptable situation on African indigenous peoples -- a situation in which they must give up the preferable alternative and get nothing in return. There has been an increase in indiscriminate and wanton poaching and increasing loss of habitat because of the bureaucratic and misguided administration of U.S. laws regulating wildlife.

The primary law in question is the Endangered Species Act of 1973. The Act itself is not necessarily the problem. The way the Act has been administered has definitely become a problem, as evidenced by a diplomatic protest filed last month by four southern African nations. I would like permission to submit this letter (which is attached to my testimony) for the record.

The letter is blunt and eloquent testimony to the way in which the ESA has been used to hamstring the conservation of wildlife in Africa. The inappropriate listing of many species, followed by the rigid administration of the permit provisions of the ESA, has made it next-to-impossible for African nations to utilize their wildlife as an economic resource. This in turn has made it next-to-impossible for these countries to provide incentives to rural people to prevent poaching and to keep landowners and community governments from turning wildlife habitat into cattle pasturage.

I am accompanied today by a person who has seen this for herself for the last five years in Zimbabwe. Her statement is also attached to my testimony and I would like your permission to have it also made a part of the record. Ms. Rihoy has spoken to villagers in rural communities whose children were killed by marauding elephants. She has seen crops, which represented an entire year's income, destroyed overnight by wild animals. She has seen the spoor of leopards right inside village compounds. This is the reality that rural Africans live with every day. To them, wildlife is not some cute and cuddly thing that can be used for fundraising purposes in New York and Miami. It is a harsh reality that can kill you and your children and destroy your livelihood. Africans will only continue to endure these hazards and hardships if they can share in the benefits from managing their land so that the wildlife will stay.

To turn again to the ESA, let me point out that more than half the mammal species listed under the ESA occur outside the U.S. Most of the ESA's "beneficial" provisions

(such as recovery planning and section 7 consulting) do not apply to these foreign species. This means that the only significant effect of listing these species under the ESA is to automatically prohibit the non-commercial importation of hunting trophies or commercial forms of trade.

As indicated by the diplomatic protest letter, the imposition of these prohibitions amounts to a trade ban. The way that the listing and permit provisions of the ESA have been administered, these trade bans have been imposed without consultation with African wildlife managers and without regard to their impact on Africans or on the conservation of the wildlife itself. In other words, the ESA has been administered in a way that interferes with uses of the species that are beneficial to local economies and that provide incentives for conservation.

Perhaps the worst thing about this improper administration of the ESA is that there is no conservation excuse for it. Almost all of the same species are also regulated by the treaty known by its acronym of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora). Under CITES, it has been recognized by the best conservationists in the world that the use of wildlife often leads to incentives for conserving the wildlife. CITES allows the non-commercial transportation of hunting trophies, for example, even for endangered species. This recognizes that the number and type of animals taken by international hunters has no biological impact on the species and often turns the species from a financial sink-hole into an economic resource. For some species, such as the leopard, the Nile crocodile, the cheetah and the elephant, quotas are set to assure that this is so. But the U.S., using the ESA, has consistently denied its markets to even these beneficial uses.

At the last CITES meeting, for example, the 128 countries that are parties to the treaty unanimously adopted a resolution calling on all countries to honor the quotas. Yet the U.S. still will not allow the import of cheetah trophies from the three countries with CITES quotas, or trophies of elephants from Cameroon and Ethiopia, leopards from Mozambique, or crocodiles from ten different countries.

I have attached to my testimony a detailed chronology showing the depressing twelve-year history of mismanagement of the crocodile issue by U.S. bureaucrats. During that time, CITES has approved the exportation of crocodiles from eleven African nations, but the U.S. has only managed to allow importation of hunting trophies from one of those countries, and it took five years to do that! The record is far worse in

regard to commercial shipments.

I have also attached three letters from Ethiopian government officials pleading with the U.S. to allow the importation of a few elephant trophies per year. The Ethiopian officials say quite plainly that the revenue from the elephant hunting is necessary for the continued administration of their wildlife conservation programs and to keep poaching under control. The U.S. response? Permits for importing elephant trophies from Ethiopia were denied.

In regard to cheetah, I have provided a copy of a 1993 letter from the U.S. Fish and Wildlife Service denying an import permit. This is still U.S. policy, despite the CITES resolution that I referred to earlier. I have also provided you with material from Namibia submitted to the 1992 CITES meeting that shows the conservation importance of allowing this non-commercial trade in hunting trophies. This material includes a letter from Peter Jackson, head of the IUCN's Cat Specialist Group, stating that cheetahs in Namibia are not endangered and that the CITES quota is quite reasonable. The IUCN (International Union for the Conservation of Nature) and its network of more than 5,000 top scientific experts represents the greatest expertise in the world on wildlife conservation.

Madame Chairman, we think that the record is clear that the way in which bureaucrats within the United States have administered the ESA has accomplished nothing but to place barriers in the way of Africans. U.S. officials, acting with arrogance and without accountability, have turned the ESA into a tool for denying economic benefits to poverty-stricken rural Africans and have accomplished little more than interfering with the conservation programs of African wildlife managers.

The answer, in our view, is to make improvements in the ESA which:

- recognize the human and conservation benefits of wildlife use, especially through programs that benefit rural communities and people;
- give proper credence to the programs and decisions of the range countries; and
- take advantage of the specialized capabilities and international reach of the CITES treaty (on wildlife trade)

Such changes will also assure that scarce U.S. budget dollars for endangered species conservation are spent most effectively.

For the record, I would like to say a few words about Safari Club International. As

the name implies. SCI is a worldwide organization of conservationists who are hunters. We represent the interests of more than one million sportsmen. Because our members pursue their interests on a global scale, we are involved in many international wildlife conservation issues. By the end of the year, we will have approximately 150 chapters worldwide. Each one of them contributes to our global conservation effort and is also involved with wildlife conservation at the local level.

SCI also has major programs in conservation education. It owns and operates a world-class natural history museum in Tucson, Arizona. Children and visitors from around the country come to see SCI's state-of-the-art educational computer displays and dioramas depicting the role and place of wildlife in the world around us.

SCI owns and operates a conservation education training facility on a private ranch in the Bridger-Teton National Forest south of Jackson Hole, Wyoming. Every year we train secondary-level resource people and teachers. Besides studying basic concepts of wildlife conservation and ecology, they learn about the role of the private sector and how it interacts with the various government agencies.

Through our chapters we also carry out community benefit programs such as Sensory Safaris ("fingertip" tours of wildlife mounts for the sight-impaired) and Sportsmen Against Hunger donations (game meat donated to the homeless and the poor).

Thank you for this opportunity to present our views. I would be glad to answer any questions, and request that Ms. Rihoy be allowed to participate.

Statement of Henri Nsanjama
Vice President, Africa/Madagascar Program, World Wildlife Fund
submitted to the
Subcommittee on Africa,
Committee on International Relations
June 22, 1995

**AFRICA'S ECOLOGICAL FUTURE: NATURAL BALANCE
OR ENVIRONMENTAL DISRUPTION.**

My name is Henri Nsanjama and I am the Vice President for Africa and Madagascar Program at World Wildlife Fund. As WWF's chief implementor of Africa and Madagascar field programs, I appreciate this opportunity to submit my views on Africa's ecology. I am a native of Malawi, in south-eastern Africa. Before joining World Wildlife Fund in 1990, I was the Director of Wildlife in Malawi where I also served as the Coordinator of Wildlife for the Southern African Development Community, which includes: Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia, and Zimbabwe. This June, I marked twenty years of working in the African environment field.

World Wildlife Fund was founded in 1961, and is today the largest private U.S. organization working in international conservation. Last year, the 1.2 million Americans who support WWF with their contributions, in partnership with our foundation and corporate supporters, contributed more than \$35 million in private funds directly to our international species and habitat conservation programs.

Allow me to start my presentation by thanking Chairman Ros-Lehtinen for calling this hearing. As the United States government redefines its role in international development policy, the question of Africa's ecology is timely. It is my hope that the testimony will help you, Madam Chairman, and your colleagues in defining how the United States can have a positive impact on the ecological future of Africa.

Since WWF's primary mission is conservation of species and critical habitats, my principle purpose as I come before the Subcommittee is to encourage your support for conservation and development programs funded by the U.S. Government. When executed through non-governmental organizations, U.S. funded programs can have a tremendous positive impact on the environment and development of the African continent.

MAJOR AFRICAN TERRESTRIAL BIOLOGICAL REGIONS

The biological diversity found in Africa includes the greatest diversity of plant and animal species of any biogeographical region. In many cases, the African flora and fauna are completely distinct and truly spectacular. There are three major categories of ecosystems in Africa. Each will be outlined below.

1. Savannas

Africa is perhaps best known for its savannas, such as the Serengeti. The savanna ecosystem is better developed and more extensive in Africa than anywhere else in the tropics. The great herds of migrating wildebeest and other large mammals of the Serengeti/Masai Mara ecosystem in Tanzania and Kenya are perhaps the most unique sights in Africa. The rich and boldly-marked giraffe and zebra, moving through mixed herds of antelopes, as lions and elephants stand majestically watching, are the images that epitomize Africa to people around the world.

In terms of the savanna's link to the people who inhabit it, the savanna has the widest range of potential for domesticated animals, and the greatest diversity of flora from which to select future crops. Humans are heavily dependent on open country crops and open country herds such as cattle, goats, and sheep. The future of agricultural innovation therefore lies in Africa, which still has potential in terms of species domestication. There is little wonder that the majority of Africans live in the savanna region.

2. Tropical Forests

In terms of biological diversity, the tropical forests of Africa are of major global importance. Of all ecosystems in Africa, they contain the greatest number of species including plants for valuable drugs and edible fruits. The *Anceistocladus korupensis*, found in Korup National Park in Cameroon, is known to kill the AIDS virus and is currently under extensive research as a cure for the disease. *Prunus africana*, also a plant from Cameroon, is one of the best treatments for prostrate cancer.

Humanity is in danger of losing this storehouse of thousands of potential cures before we have time to learn how they could be used. United States' policy towards Africa must recognize the treasure that lies in central Africa, particularly the Congo Basin. This forest is one of the world's last great stores of untapped biological wealth.

3. Montane Forests

African montane forests also serve a vital function for human needs by protecting watersheds and water supplies to the lowland areas. My native country, Malawi, is heavily dependant on the watersheds from montane forests. Seventy percent of animal protein consumed in Malawi is from fish. All major the catchments of the rivers that feed Lake Malawi are protected in the Nyika National Park. Nearly all the fish eaten in Malawi come from the lake.

Montane forests also protect spectacular and interesting fauna and flora, including mountain gorillas, golden moles and giant alpine plants. Ecotourism in Rwanda, which is basically mountain gorilla viewing, is the third highest source of hard currency after tea and coffee, respectively. Gorilla viewing earns \$126 per visitor per day in hard currency for Rwanda. The Gorillas are so valuable that during the chaos of the last two years in Rwanda, mountain gorillas and their ecosystems were protected because of their ability to capture hard currency through tourism.

THREATS TO BIOLOGICAL DIVERSITY

The viability of Africa's rich and valuable biological resource is increasingly threatened, and is highly endangered in some cases. An example is the severely endangered status of black rhinos. Several factors have contributed to this situation, including:

1. Severe economic stagnation, resulting in unmet basic human needs;
2. Human population growth out-pacing agricultural production, leading to frequent famines;
3. Agriculturally unproductive land, resulting in cultivation on marginal land;
4. Poor development of human resources and weak institutions that deal with environmental issues;
5. Frequent droughts throughout the continent.

Of all the contributing factors, **poverty** is probably the major constraint to conservation in Africa. **Economic underdevelopment** leads to **poverty** which in turn leads to **unsustainable use** of resources. Some basic social indicators of development demonstrate the level of underdevelopment in most African countries. I have chosen Malawi, Zambia, Namibia, Madagascar and Central Africa Republic to illustrate this point.

Social Indicators of Development

	CAR	MAD	MAL	NAM	ZAM
GNP per Capita	400	220	200	1820	380
Primary School Enrollment (% of School Age Pop.)	68	66	-	-	79
Infant Mortality per 1,000	100.8	93.0	141.6	58.6	103.0
Child Malnutrition per 1,000 (Under 5 Years)	24.0	39.0	27.0	-	26.8
Population per Physician	25.3K	8.7K	12.9K	4.3K	11.4K
Population per Nurse	2.2K	1.8K	1.2K	-	.06K
Population per Hospital Bed	1.1K	1.3K	1.6K	-	.003K
Pupils per Teacher	128.0	59	-	-	.004K

Source: World Bank, 1995 (Figures are estimates of 1988-93.)

This table illustrates that, excluding Namibia, the average gross national product per capita for these countries is \$300, as compared to \$24,740 in the United States. The average

population per physician for all the five countries is 9,920, in contrast to 470 in the United States. The average infant mortality per 1,000 births is 100, while it is 11 in the United States. The list of demonstrable statistics goes on and on.

The statistics show that most African countries remain below the poverty line according to the United Nations. In order to provide even the bare minimum for their people, many African governments are exploiting their natural resources, in the form of logging, collection of non-timber plant products, fishing and wildlife in an unsustainable manner in order to mitigate the devastating human suffering.

Like pouring salt into a wound, in terms of wildlife, human suffering has been exacerbated by classic conservation methods which advocated strict protection; such an approach results in denial of consumptive use by all, sometimes including subsistence use by rural communities.

3. ECOLOGICAL FUTURE: NATURAL BALANCE OR ENVIRONMENTAL DISRUPTION

Unlike many other regions of the world, the ecological future in Africa does not have to be grim. In recent years conservationists within Africa and other parts of the world have joined hands in making great progress that has brought about a sense of optimism. A shift in conservation philosophy, and the realization that conservation and the development cannot be separated has been the cause. Protection of the environment must be balanced with the development needs of the people. For example, World Wildlife Fund, has been implementing a successful program called **Wildlands and Human Needs**. The program has become so successful that currently nearly all our efforts integrate human needs with natural resource conservation.

Examples include a joint project by World Wildlife Fund, the government of Namibia and local communities in the Caprivi strip of Namibia. Here we have embarked in a project called **Living In a Finite Environment - LIFE**, which seeks to balance economic development and protection of the very rich but fragile environment in northern Namibia. The project is jointly funded by the World Wildlife Fund and the United States government. Namibia is a dry country and only the north has perennial rivers. Two thirds of Namibia's population live in the north, as do most of its rich wildlife resources. Wildlife-based tourism is probably the only foreign exchange earner for the region. The future of rural Namibia depends on the limited resources in this area. Unsustainable management of the resources in this region would spell a disaster for an extremely delicate ecosystem and the people who live there.

The entire electric power supply in Malawi is generated from the Shire river, the only outlet of Lake Malawi. If the Shire river stopped flowing today, Malawi would be in total darkness. Lake Malawi's river catchments are of great importance to Malawi. The major catchments of the lake are in Nyika National Park.

World Wildlife Fund, in collaboration with the Central African Republic has established the Dzanga Sangha Special Reserve for the sole purpose of ensuring that the BaAka people of the region are able to continue to live in the area in a sustainable manner. Their livelihoods depend

entirely on forest products. This arrangement allows the BaAka people to benefit from concessions for logging, trophy hunting, and ecotourism in the area. Through a government decree, 40% of revenues collected from these activities go to the communities for development activities.

By their nature, humans express little desire for anything that is not instrumental to human development. This is why conservation and development cannot be separated. To some extent, classic conservation has driven some wildlife to near extinction and has deprived numerous other natural resources in Africa. In use of natural resources, however, we have learned that environmental disruption is an avoidable consequence. World Wildlife Fund, together with African communities all over the continent seek to minimize disruption to the functioning of ecological systems.

Conclusion

It is not too late to save Africa's ecological integrity from threats of poverty and the hardships that follow poverty. Africa still has vast areas of territory with little or no human presence. The system of parks and protected areas in many countries, while not complete, is well developed. Although the levels of public awareness and understanding of the consequences of environmental degradation are low, they are improving and many countries have made significant steps toward passing laws that protect the environment.

With the advent of democratic governments in many parts of the continent, many countries are addressing their economic problems and there are systems of checks and balances emerging. While these are important elements, Africa will continue to seek assistance from the developed world. The United States has an important role in this respect as a leader in both development assistance and protection of the world environment.

In terms of wildlife, it is worth noting that several wildlife species which were endangered a few years ago, including the leopard, Nile crocodile and even the mountain gorilla, appear to be making a strong comeback due to conservation efforts on their behalf and indigenous grassroots conservation initiatives. The recovery of these species demonstrate the fact that Africa's ecological future lies in ensuring that rural communities have an economic stake in conservation.

In conclusion, I would like to say that humankind has a duty to conserve the environment of the world. In Africa, there is still time to do so. However, I must warn that more and more indicators show we have now reached the cross-roads. We must decide now whether we are going to proceed in our efforts to conserve the rich and diversified life that Africa offers, side by side with our African partners, or not.

Finally, I invite you, Madam Chairman, to visit some of our projects in Africa. I am confident that you would be satisfied with the tremendous benefits these projects are providing for local people, their countries, the African ecology, and the global community.

Energy Conservation in Kenya

EXPERIENCES OF THE KENYA RENEWABLE
ENERGY DEVELOPMENT PROJECT

PREPARED BY

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FOR

Ministry of Energy and Regional Development
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March 1986

Energy Efficient Stoves

The project initiated the development of an energy efficient charcoal stove which proved it could save from 25-50% of the charcoal ordinarily used for cooking. The improved stove costs about the price of a typical family's monthly expenditure for charcoal or about Kshs 90/-, so that a family can recover the cost of the improved stove in about 2 months from savings. Over 125,000 stoves are estimated to have been sold by mid 1985, and currently there are more than 5000 stoves being produced per month.

In the dissemination of the stove technology the project has focused on training and demonstration to private sector commercial producers and the traditional sector. These are located primarily in the country's urban centers. The improved stoves are estimated to have captured about 6% of the market for new and replacement stoves. Work is also underway to develop energy efficient wood stoves. Field testing of these has already begun.

For more information on energy efficient stoves, see the companion booklet, Improved Cookstoves in Kenya, also available from KREDPP.



FIGURE 20. Producers of Ceramic Liners for Improved Charcoal Jikos Shown at Work

Fuel Substitution Opportunities

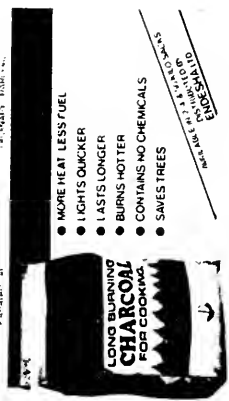
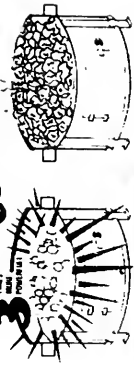
Coal Substitution

Prospects for coal substitution for industrial fuel oil have in the past appeared attractive for Kenya even though both fuels must be imported. One major cement plant with a particularly favourable coastal location and a history of partial coal use (Bamburi Portland Cement) has achieved a successful conversion to coal. Further study of the coal substitution option was initiated under the KREDP, with initial focus on port facilities and conversion processes and economics. Recent reduction in the price of oil, the high cost to convert plants to coal use, and other factors, make further coal substitution unlikely at present.

Domestic Biomass Material

A more practical and economic alternative for many firms is the greater utilization of domestic fuel resources. These resources consist of a variety of materials, some being residues of agricultural processing such as coffee and rice husks, sawdust and wood-waste, jute, sisal-waste and cashewnut shells. In some cases existing or purposely planted woodfuel is a very attractive oil substitute, as in the tea and tobacco industries.

**MORE HEAT FOR
LESS FUEL!
WITH KAHAWA
LONG BURNING CHARCOAL
FOR COOKING**



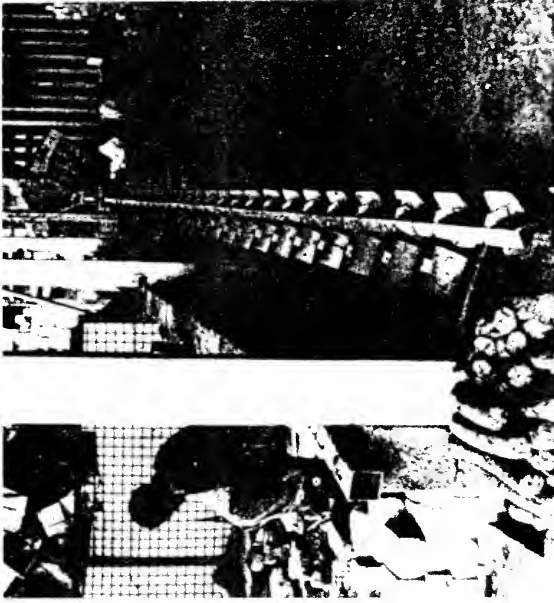


FIGURE 22. Preparation of Coffee-husk and Sawdust Briquettes for Boiler Fuel. These materials proved to be a very cost effective substitute for imported oil, and together with a converted oil-fired boiler resulted in major fuel cost reductions for the plant

fired boiler to burn the combination of wood and briquettes in an external furnace. A case study was written on this experience so that other interested firms could follow this example. In addition, technology assessment and public information work was undertaken to provide basic information on the potential for domestic fuel substitution.

Potentially Available Fuel Substitutes

Material	Quantity Available Annually
----------	-----------------------------

1. Materials at Centralized Sites

Sawdust at rural sawmills	63,000 tons
Coffee-husks	35,000 tons
Municipal waste	100,000 tons
Bagasse	35,000 tons
Rice husks	8,000 tons
Sisal-waste	12,000 tons
Cashewnut shells	7,000 tons

2. Materials Dispersed Requiring Gathering and Transport

Papyrus	160,000 tons
Forest thinnings	24,000-400,000 tons

Assistance during the KREDP was given to several firms to convert to biomass materials as fuel. One involved the purchase and installation of a briquetting press for the densification of coffee-husks, and the conversion of an oil-

Future Opportunities

Many opportunities remain for conservation and fuel substitution initiatives to be successfully applied to improve the efficiency of Kenya's energy system and reduce its foreign exchange costs. Even with lower imported oil prices most of these conservation measures are economically beneficial. Several of the more important opportunities are:

Energy Audits

Past audits have been very successful, but were undertaken for a limited number of firms and focused primarily on short-term and low-cost opportunities. Further audit activities by Government, and audit and conservation services by the private sector are required in order to:

- Audit all medium to large scale firms and significant institutional and government energy users,
- Address medium to long term and higher cost opportunities for previously audited firms, and
- Follow-up previous audits to stimulate implementation

Training

Creating awareness and providing essential technical information to the private sector has been extremely valuable in producing self-help conservation efforts. Further training is

needed to:

- Expand government's capability to design, monitor and implement conservation activities,
- Continue to stimulate conservation actions by private sector and Government engineers and managers responsible for energy management, and
- Create on-going local capability to service industrial and institutional needs for technical support in energy conservation.

Fuel Substitution

There has thus far been limited experience and success with substitution of domestic biomass fuels for oil in plants in Kenya. The first major government initiative was the "Coal Conversion Action Plan Study" done in conjunction with the World Bank. This study found that significant additional coal substitution was unlikely, but indicated that further potential exists for domestic (biomass) fuel use. Future fuel substitution work should address:

- Supply of domestic fuels by type and source,
- Fuel processing requirements, technology and cost,
- Utilization methods and technology, particularly for

substitution for oil in existing plants, and

- Market size and location given the sources and costs of different supplies, and the geographic location and size of consumers.

Incentives and Financing

As more and more firms become aware of conservation and fuel substitution opportunities there will be a greater need to provide sufficient incentives and financing to see that opportunities are realized fully and rapidly. Various constraints impede implementation and should be both better understood and explicitly dealt with. Areas that should be addressed include:

- Current constraints to conservation for public, parastatal, private and Government firms and institutions,
- Incentives which assist in stimulating action such as reducing levels of duty and sales tax, stream-lining import licensing procedures, and reducing income taxes, and
- Financial and technical assistance in preparation and implementation of investment projects.

Introduction

Kenya had an estimated population of 20.2 million in 1985. The country's land area is about 221,000 square miles, of which only 17% is considered medium to high potential



FIGURE 1 Kenya Petroleum Refinery at Mombasa. The refinery is the sole source of domestically refined products for Kenya, and as well supplies several neighbouring inland countries.

agricultural land. Agriculture is the backbone of the economy accounting for over 30% of Gross Domestic Product. Major products include coffee, tea, maize, wheat, sugarcane, cattle and dairy products. Manufacturing is second only to agriculture in economic importance, accounting for about 13% of GDP. Kenya has no known deposits of fossil fuels and therefore must import all the petroleum required for transport, manufacturing and power generation. Fortunately, substantial hydroelectric and geothermal potential exists and has been partially developed.

Since independence in 1963, Kenya has continued to operate a mixed economy where the private sector has played an essential and major role in productive activities. Government is striving hard to provide the necessary jobs and housing, food and essential services required for the country's growing population. Population growth is one of the nation's most difficult problems, as Kenya has one of the world's highest growth rates, averaging about 3.8% during the 1970's. Another serious impediment to realizing Kenya's development goals is insufficient foreign exchange. While the volume of merchandise exports has grown by 1.5% per year since the late 1960's, overall purchasing power has dropped by 27% since the early 1970's. Petroleum imports constitute a major part of this problem, growing from a net cost of only K£ 1 million in 1973 and reaching a maximum of K£200 million or 63% of net export earnings in 1981, before dropping to K£ 193 million or 32% of export earnings in 1984. A major portion of that drop was due to a 12.5% decrease in oil consumption.

The Role of Energy Conservation

Energy conservation activities have been acknowledged to play an important part in the Government's strategy to deal with foreign exchange constraints and the adverse terms of

trade. The Kenya Government and the U.S. Agency for International Development agreed to undertake the Kenya Renewable Energy Development Project (KREDP) in 1981, and recognizing the opportunities for conservation included a significant conservation component. The ultimate objective of this program was to increase the efficiency of energy used and thereby industrial and other processes as a whole, not simply to reduce energy consumption. Conservation activities have been structured to help Government provide policy guidance and training, as well as to augment the private sector's strong economic incentives to save fuel wherever cost effective.

The specific objectives of the KREDP conservation program are to:

- establish energy information and acquisition systems,
- provide technical assistance in energy conservation, and
- provide economic analysis support.

The project was implemented through the work of one long-term advisor, 9 months of short-term specialized technical services, a Kenyan conservation technician and several Government counterparts.



FIGURE 2 Petroleum Tanker Off-loading at Mombasa. All Kenya's crude oil and refined products come through the Port of Mombasa.

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Appendix A: Environment Program Project List (FY 1992-93)

A-1

Project Number	Title ^a	Mission/Office	Years of Obligation ^b	Planned LOP ^c	Percent of Obligation ^d						ENV STRA
					FOR	ENY	ESA	WAT	URB	POL	
Africa											
625-0970	Sahel Policy Project	Africa Regional	1985 - 92	7883			10				10
625-0973	Sahel Water Data and Management III	Africa Regional	1987 - 97	20194						30	30
625-0975	Sahel Regional Institutions	Africa Regional	1987 - 97	26250	10					41	43
698-0467	• Natural Resources Mgmt. Support	Africa Regional	1987 - 92	21953	72					62	92
698-0478	• Policy Analysis Research & Tech. Support	Africa Regional	1992 - 98	73800	12	2	24	4	3	11	54
698-0492	Emergency Water Supply	Africa Regional	1992 - 92	3340				100			100
698-0517	• African Emergency/Locust Grasshopper Program Development and Support	Africa Regional	1987 - 94	32974			48				48
633-0250		Botswana	1988 - C	1896						25	25
686-0270	Agriculture Research & Training Support	Burkina	1989 - 94	6776			25			50	75
686-0276	Pilot Village Natural Resources Mgmt.	Burkina	1989 - 90	1500	25		25	25	3	25	100
695-0224	Burundi Enterprise Support and Training	Burundi	1990 - 96	21000			5				5
695-0125	Burundi Enterprise Promotion Prog. - NPA	Burundi	1990 - 96	70000			8				8
695-0510	Program Development and Support	Burundi	1988 - C	2494			5				5
631-0052	National Cereals Research & Extension II	Cameroon	1985 - 93	32436	9		100				100
631-0058	• Tropical Roots and Tubers Research	Cameroon	1986 - 92	5195			35				35
631-0066	Agriculture Education II	Cameroon	1991 - 92	4623	23		58				58
655-0015	Program Development and Support	Cape Verde	1988 - C	1075			10				10
655-0017	• Watershed and Applied Research Dev.	Cape Verde	1991 - 96	3800	20		20				60
679-0008	Conservation of Northern Forests	Congo	1991 - 93	1900	100						100
661-0002	• Entreat Technical Assistance - PA	Eritrea	1993 - 93	5650			10				10

^a Project described in this report

^b NPA = Nonproject Assistance
PA = Project Assistance

^c LOP = Life of project

^d C = Continuing project
ENY = Environmental Strategy Goals
ESA = Environmental Strategy Goals
WAT = Water
URB = Urban
POL = Policy
ENV STRA = Environmental Strategy Goals
See Appendix A

Appendix A: Environment Program Project List (FY 1992-93)

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A-4

Project Number	Title ^a	Mission/Office	Years of Obligation ^b	Planned LOP ^c	FOR	Percent of Obligation ^d						ENY STRA
						ENY	ESA	WAT	URB	POL	ENY STRA	
696-0129	Natural Resource Management - PVO	Rwanda	1989 - 91	12245	33	50	24			8	100	
696-0148	Assistance to Displaced	Rwanda	1993 - 93	2700		25					25	
658-0002	Agricultural Training	Sao Tome/Principe	1986 - 91	200			3				3	
685-0283	Senegal Reforestation	Senegal	1986 - 92	14000	100					25	100	
685-0284	PVO/NGO Support	Senegal	1990 - 94	21000						20	20	
685-0285	Natural Resource-Based Agric. Research	Senegal	1991 - 97	19750		15				15	30	
685-0294	Program Development and Support	Senegal	1988 - C	3462		40					40	
685-0305	Community-Based Natural Resources Mgmt.	Senegal	1993 - 99	25000	90	14				70	100	
685-ATLS	African Trng. for Leadership and Skills	Senegal	1993 - C	1000						15	15	
685-HRDA	Human Resource Development Assistance	Senegal	1988 - C	2000						15	15	
690-0224	• Regional Sorghum/Millet Research	Southern Africa Reg.	1983 - 94	25310		20					20	
690-0251	• Natural Resource Management	Southern Africa Reg.	1989 - 95	38458	100					100	100	
690-0268	S. African Root Crops Research Network	Southern Africa Reg.	1993 - 95	7000		50					50	
621-0171	Wildlife Management	Tanzania	1990 - 91	2500	100					100	100	
621-0521	Program Development and Support	Tanzania	1989 - C	4045						4	4	
617-0123	Action Program for the Environment - NPA	Uganda	1991 - 95	10000	57	15				65	95	
617-0124	Action Program for the Environment - PA	Uganda	1991 - 95	17115	79	15				65	95	
617-0125	Ag Marketing & Institution Strengthening	Uganda	1994 - 99	25000		33					33	
617-0129	West Nile Community Self-Reliance II	Uganda	1991 - 91	3000	24						24	
611-0230	Zambia - Privatization	Zambia	1992 - 95	18000			4			7	7	

• Projects described in this report

^a NPA = Nonproject Assistance
PA = Project Assistance

^b C = Continuing project

^c LOP = Life-of-project funding (\$000s)

^d Environmental Strategy lists
estimate overlapping obligations
See Appendix A

Appendix A: Environment Program Project List (FY 1992-93)

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A-3

Project Number	Title ^a	Mission/Office	Years of Obligation ^b	Planned LOP ^c	FOR	Percent of Obligation ^d				ENV STRA	
						ENY	ESA	WAT	URB		POL
687-0113	• Knowledge/Eff. Appl./Pol. for Envir Mgt	Madagascar	1992 - 94	9000	90					90	90
687-0115	• Knowledge/Eff Appl/Pol for Env Mgt - NPA	Madagascar	1992 - 94	27000	100					100	100
612-0235	Agric. Sector Assistance Program - PA	Malawi	1991 - 96	15000	17		17			17	34
688-0218	Livestock Sector II	Mali	1982 - 91	23715	14		20			20	40
688-0232	Farming Systems Research and Development	Mali	1985 - 94	20793	10		44			44	44
688-0233	Development of Haute Vallée	Mali	1988 - 95	25230			25			25	25
688-0244	Animal Production for Export	Mali	1992 - 97	18200			12			12	12
688-0247	PVO Co-Financing	Mali	1989 - 95	30040	15		3			50	15
688-0250	Strengthening Agricultural Research	Mali	1992 - 97	19466	12		50			50	50
688-0267	Mali Environmental Support	Mali	1994 - 98	7000	35		9			25	55
688-0937	• Village Reforestation	Mali	1983 - 92	2766	100					25	100
656-0217	Mozambique - PVO Support Program	Mozambique	1990 - 94	84389			5				5
656-0223	Market Recovery and Development - NPA	Mozambique	1995 - 99	40000			4				4
683-0256	Applied Agricultural Research	Niger	1987 - 97	20000			10				10
683-0257	• Agric. Sector Development Grant II - NPA	Niger	1990 - 96	20000	29			25		25	54
683-0265	• Agric. Sector Development Grant II - PA	Niger	1990 - 95	7972	25			25		25	50
683-0271	Disaster Preparation & Mitigation - NPA	Niger	1992 - 96	10000			15				15
683-0278	Gouré NRM Interventions	Niger	1992 - 96	5000			50		50		100
683-0279	Disaster Preparation/Mitigation Support	Niger	1992 - 96	8000			15				15
936-5556	• Forest Resources Management	Niger	1993 - C	400	50					50	100
624-0434	African Development Bank II	REDSO - West Africa	1985 - 94	19999			50				45
624-PART	Policy, Analysis, Res. & Tech Support	REDSO - West Africa	1992 - C	1099							28

^a Projects described in this report

^b NPA = Nonproject Assistance
PA = Project Assistance

^c C = Continuing project

^d LOP = Life-of-project funding (\$000s)

^e Environmental Strategy totals eliminate overlapping obligations
See Appendix A.

STATEMENT BY ELIZABETH RIHOY
WASHINGTON DIRECTOR, AFRICA RESOURCES TRUST
SUBMITTED TO THE SUBCOMMITTEE ON AFRICA
COMMITTEE ON INTERNATIONAL RELATIONS
US HOUSE OF REPRESENTATIVES
'AFRICA'S ECOLOGICAL FUTURE'
IN SUPPORT OF TESTIMONIAL BY SAFARI CLUB INTERNATIONAL
JUNE, 1995

AFRICA RESOURCES TRUST

Constituted as a welfare organization in Zimbabwe and a private voluntary organization in the US, the Africa Resources Trust (ART) is a non-governmental organization working in Africa in the field of development and environment. ART is dedicated to the promotion of human welfare (especially the alleviation of poverty in remote rural areas) through the sustainable use of natural resources, with a special focus on wildlife.

OVERVIEW OF THE ISSUES AFFECTING AFRICA'S ECOLOGICAL FUTURE

Africa is frequently portrayed by both the media and many in the international community as a 'basket case', where populations are expanding beyond the capacity of the resource base to sustain them; resources, both finite and renewable, are becoming exhausted; environmental degradation is an irreversible force; and species loss a common occurrence. What we hear less often from Africa are the success stories which address both human development and resource conservation needs. This paper shall draw upon one of these, the CAMPFIRE programme in Zimbabwe, to indicate possible options for a sustainable ecological future for Africa.

Notwithstanding these success stories, the ecological challenge to many African nations is a serious one. World Bank projections indicate that by the year 2025 Africa's population will have doubled, reaching 1 billion. This will dramatically increase the pressure on the natural resource base and, unless viable solutions are found, will lead to further environmental degradation. To respond to these developments Africa is confronted with 2 key challenges if it is to provide a sustainable future for its growing population. Firstly, it must develop its modern economy, involving both industrialization and urbanization, to absorb and employ its growing populations. Secondly, it must maintain and expand a viable rural economy with appropriate and productive forms of land use to both maintain its rural population and supply the urban areas. This paper will focus upon some of the responses to the second issue, seeking to demonstrate that the ecological future of Africa is intimately linked with the future development of its rural economy.

The rural economy has been subjected to pressures which have led to ecological and environmental degradation. Key amongst these is the increasingly intense competition for land, resulting in inappropriate, unsustainable forms of land use in some areas. This has led to a loss of productive land and a related loss of biodiversity. Much of Africa is unsuitable for intensive agricultural production - only 5% of Southern Africa is considered suitable - but the pressure for farming land has forced people into marginal lands. The result is severe land degradation which leaves people and the environment impoverished. Africa is unlikely to produce its own 'green

revolution' in the near future and may instead need to pursue a more diversified path of natural resource management and agricultural production based upon the prevalent natural conditions and available resources.

Africa's current development paths have focused on intensifying the productivity of arable agriculture and livestock at the expense of exploring the productive potential of other existing resources. This has produced competition for land in which the potential benefits of much of the indigenous fauna and flora, particularly wildlife, are largely neglected. At the same time conservation efforts have sought to protect these resources against development, creating a seemingly insurmountable conflict between the goals of conservation and development. Many African countries are currently rediscovering the productive and economic potential of their indigenous resources in their national development programmes. It is in this context that we see the following example as providing possible options for reconciling conservation and development objectives, whilst addressing the challenges described above.

Traditional approaches to conservation in Africa have been based upon the Western conservation paradigm of protectionism. This essentially assumes that any interaction, particularly use, between humans and wildlife will have a negative conservation impact. It has sought to place wildlife within a vacuum, creating protected areas in which humans give way entirely to animals. These protected areas are often viewed with resentment as they are seen by rural people as under used and elitist. Outside the protected areas we see an increasing trend in which the converse situation occurs, with the wildlife and its habitat giving way entirely to people, often resulting in a loss of biodiversity and environmental degradation.

ALTERNATIVE OPTIONS - COMMUNITY BASED NATURAL RESOURCE MANAGEMENT

In the last ten years there has been a growing recognition throughout Africa that this protectionist approach to wildlife conservation has been failing to address either the environmental or developmental needs of African nations. An alternative approach to conservation was required, which would address the realities of conservation and development in the African context. This approach, commonly known as community based natural resource management, is one in which responsibility for the management, use and benefit of natural resources, including wildlife, is returned to the local communities who live with it. This pragmatically acknowledges that benefits must accrue to the people who coexist with wildlife or more economically viable - but often environmentally degrading - land uses will be preferred.

Zimbabwe was one of the first countries to pioneer this approach through the introduction of the Communal Areas Management Programme For Indigenous Resources (CAMPFIRE) Programme. CAMPFIRE, and other similar programmes throughout Southern Africa, recognize the following key points as fundamental to the sustainable management of the natural resource base:

- Those who can best manage the wildlife resource are those people who live with it on a daily basis
- The conservation of wild species and habitat will only be successful in the long run if it is

able to generate revenue - if it is an **economically** competitive form of land use.

- To make wildlife economically competitive, Governments and conservation organizations need to begin to **promote** harvesting and using wild species as an option for wildlife conservation, rather than focusing exclusively on the old protectionist conservation paradigm which prevented such uses.
- If wildlife is to become an economically viable form of land use it will be dependent upon the availability of **markets** for wildlife products, these markets depend on policy and regulation both at the international level and within some consumer nations, such as the Endangered Species Act in the US.

CAMPFIRE AND RELATED PROJECTS

It is our experience in Africa that conservation and development are both most effectively achieved when the goals of each contribute towards the other. **CAMPFIRE** and other similar initiatives are attempts to achieve this by ensuring that wildlife management becomes an accepted land use practice in areas that are marginal for other forms of land use.

Until recently all use of wildlife was illegal and referred to as poaching. Thus wildlife was of no legal use but was a very real pest which could destroy livelihoods overnight and presented a serious threat to human lives. Each year thousands of people in Zimbabwe lose their entire year's income, in the form of their crops, to marauding wild animals, often resulting in starvation. Hundreds of people are killed or maimed, usually by elephant, hippo or buffalo. In this context rural communities have been given strong incentives to get rid of wildlife, and to change the habitat that sustains it, as fast as possible in any way they can, legal or otherwise.

The advent of **CAMPFIRE** has reversed this situation by transforming wildlife, the liability, into wildlife the important economic asset. To succeed, **CAMPFIRE** has introduced legislation which effectively devolves ownership of wildlife to local communities. For the first time in recent history, wildlife management has the potential to become a competitive form of land use for the local communities who live with it. Wildlife is now viewed as a valuable resource, which should be managed, nurtured and utilised in the same manner in which a farmer previously managed his cattle. Wildlife has a comparative advantage to cattle on semi-arid rangelands as it makes wider and better use of the available vegetation and has many marketable uses in addition to meat production. Conservative estimates indicate that wildlife utilization produces returns of at least double those produced from livestock ranching on marginal lands, approximately 50% of the land area of Zimbabwe.

By linking conservation benefits with development objectives, habitat destruction and degradation has been reversed in Zimbabwe. **CAMPFIRE** started in 1989 when 2 districts received authority to manage their wildlife. The fact that by 1993, 22 districts had joined the programme, approximately one third of all the districts in the country, speaks for itself. A similar situation has occurred in the commercial farming sector. Today, more than 75% of the privately owned ranches in Zimbabwe have integrated wildlife management practices into their overall land use strategy and thus derive additional income from wildlife. In the SE Low veldt a consortium of 22

commercial farmers have recently pooled their land to form a wildlife conservancy of approximately 1 million acres, which Zimbabweans claim will be the largest privately owned wildlife area in the world. Today in Zimbabwe 50% of the land dedicated to wildlife management is found in commercial and communal areas, whilst National Parks account for less than 30%. This amounts to more than one third of the area of Zimbabwe, a real contribution to biodiversity conservation. Key species have also benefited considerably as a result, with several species previously classified as endangered, such as the cheetah, Nile crocodile and elephant, seeing significant increases in their populations. Habitat loss has been the single biggest threat to wildlife conservation in Africa, by reversing this, many species have seen increases in their populations.

Under CAMPFIRE more than 250,000 people are now engaged in the practice of managing wildlife and reaping the benefits of using wild lands. These people live in remote areas that have historically been by passed by development initiatives and it is no exaggeration to say that they are some of the poorest people in the world. CAMPFIRE revenues amount to approximately US\$ 2,000,000 per year, an enormous figure when one considers that the average annual income per household in these areas is approximately US\$150. Communities have devised a number of ways to improve their livelihoods by taking advantage of the new found value of wildlife. The single biggest revenue generating activity is internationally marketed safari hunting, which generates over 90% of all cash income. But a variety of other uses exist, such as photographic safaris, live sales of wildlife, cropping to provide nutrition locally and sale of skins. The revenues from these efforts generally go directly to households, which decide how to use the proceeds. In the recent drought years this cash has often staved off some of the worst effects of crop failure, starvation, or communities may pool their resources to build a clinic or school; often the money will be communally invested in an income generating project, such as a grinding mill or shop.

But CAMPFIRE is far more than simply a wildlife management and income generating programme. It is a means by which communities can take back control over their own futures and reassert their self-reliance. It has returned to rural communities the right to make decisions concerning how they will use their natural resources. CAMPFIRE has become a forum for a wide range of issues, including representation, economic participation and the local governance of communal areas. In many ways it is an exercise in democracy. It will be tragic and ironic if these rights are undermined yet again by imperialism from the West, this time in the guise of environmental concerns, 'eco-imperialism'.

CAMPFIRE is by no means the only initiative of this type. Similar programmes are in operation in Botswana, Namibia, Malawi and Zambia. Tanzania, South Africa and Mozambique are exploring options for developing programmes, whilst several countries outside Southern Africa, such as Uganda, Cameroon and Kenya are implementing pilot projects.

INTERNATIONAL TRADE AND NATURAL RESOURCES

It may be interesting to note that the impact of the US has played a significant role in the history of CAMPFIRE, both through positive support as well as potential threats to its economic viability. This paper will conclude by illustrating these impacts and the implications this may have for future US policy towards Africa.

The first point refers to foreign aid provided by the US through the USAID. As is so often the case with innovative approaches, CAMPFIRE began as an idea with no resources, little political and financial support and many sceptics. As the programme began to evolve, it increasingly attracted the attention of both Government officials and international aid agencies. The institutional development and financial support provided by USAID during the pilot stage of this programme proved to be a critical factor in demonstrating the viability of linking conservation and development objectives through the use of wild species.

The need for such foreign assistance will continue for a number of years as the programme seeks to develop the institutional and economic basis for community based management of natural resources across the country. The complexity of seeking to transform key elements of a rural economy's established production systems should not be underestimated. It requires a substantive investment in institutions, capacities and infrastructure, the costs of which cannot be borne by the communities alone.

However, in the long run trade, both domestic and international, will determine the future of the programme. CAMPFIRE depends upon obtaining an economic return from wild resources, which in turn requires open and functional markets for these products. To demonstrate the impact of international trade policies upon local initiatives of this kind, consider the following example.

Over the last few years there have been two instances where actions were almost taken by the Secretary of the Interior under the ESA legislation, which would have effectively prohibited the import of ivory trophies. CAMPFIRE is highly dependent upon trophy hunting for generating cash revenues for its communities, as demonstrated by the following figures:

- Trophy hunting provides over 90% of the cash revenue.
- Elephant hunting alone provides 64% of the cash revenue
- The US makes up over 60% of this market.

Hunters from the US would have been prohibited from importing hunted trophies; this would have resulted in lost revenues to communities; loss of benefits would have reduced the incentives for conserving the resource; other land use options would have been selected resulting in environmental degradation in these marginal environments.

The threat implied by the ESA's regulations and the implications this has for the authority of Southern African governments in managing their own resources is taken extremely seriously by these governments. Diplomatic protests have been received by the Chairman of the Resource Committee from both the Washington based Ambassadors and the Directors of National Parks Departments in Botswana, Namibia, Malawi and Zimbabwe, expressing their countries reservations with existing legislation and suggesting revisions to those sections of the Act which apply to foreign species. They indicated that in the eyes of these governments the determinations made under the Endangered Species Act regarding non-US species:

- Were contrary to the international regulatory treaty for wild species, CITES;
- That they frustrated these Governments strategies for wildlife conservation; and
- that they infringe upon the sovereign right of Governments to take responsibility of managing their own wildlife

CONCLUDING REMARKS

The African environment is extremely fragile and inappropriate forms of land use rapidly lead to environmental degradation. National development programmes are promoting the use of indigenous flora and fauna as both an ecologically and economically viable land use in marginal areas. The long term viability of such programmes will depend upon demand and markets for their products. If markets are not available other forms of land use will be chosen, even though they may not be environmentally sustainable. If Governments and organizations wish to assist in ensuring that Africa's ecological future is not jeopardized they should create appropriate incentives for sustainable use of indigenous resources by providing access to markets which will generate an economic incentive to conserve wildlife and its habitat. In Africa natural resources are part and parcel of the communities life. They can provide subsistence needs and marketable products in raw or processed form. CAMPFIRE and similar approaches are not a panacea for all of Africa's environmental problems but they represent part of the solution. It is the local use of resources for local people's development that will ensure the long term ecological future of Africa.



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